

AC-1

AC-1

Sugar Maple Seed Orchard

Plantation AC-1

Copy 1



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

See Corrected Map  
3-19-84

		Column	5	10	15	20	25	
		Row						
			U	K L M				
			T C	U O R				
			R D J G Q P T					
			P	K J M	C H J L	P J T	R H L	
		5		L D H L O	U K M	K U C O	S J M B	5
			M C	G Q P K T	H R	L D P G T K	C	
			U T R D J S		J S M	H U O		
				H R L C P K T C N	R J L	P		
				Q M	U O G	K M C Q		
		10		P U R L P T		D R G		10
				O T C M	J U	H		
				D G R K L C P	T J			
				O H	M D Q G U K			

Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356





# Apple Creek - Sweet tree seed orchard 2002

\* Row #

\*\* Tree ID

road  
row (3)

AC-1

	2	3	4	5	6	7	8
1	K 4.0 J 2.0 H 2.45 G 2.9 - E 4.0 - -						
2	U 3.0 T 2.85 S' 2.8 - Q' 3.05 - O' 3.8 N ??						
3	G 3.3 - - - - B 2.3 - -						
4	Q 3.5 - O' 2.6 N' 3.0 M' 2.4 L' 2.05 U' 2.5 T 2.4						
5	D 2.9 - - - K 2.8 J 2.0 H 3.0 G' 2.2						
6	M 4.1 L 2.5 U 3.2 T 2.6 S 2.4 - Q 2.6 -						
7	- K 3.1 J 2.1 H 3.0 G 1.8 - E 2.25 D 2.25						
8	- - Q 3.1 - O 3.4 N 3.25 M 3.4 L 4.1						
9	H 3.2 - - E 4.2 - - A 3.7						
10	O 2.8 N 3.05 M 2.8 L 2.4 U 3.0 T 2.4 -						
11	D 2.4 - B 3.6 A 2.9 K 3.2 J' 3.05 H 4.05						
12	S <sup>2</sup> 2.5 - Q <sup>2</sup> 2.35 - O <sup>2</sup> 2.65 N <sup>2</sup> 1.6						
13	T 2.7 - - B 2.75 -						
14	O <sup>2</sup> 2.6 N <sup>2</sup> 5.9 M <sup>2</sup> 2.85 L <sup>2</sup> 2.6 - -						
15					H dead	S 2.25 -	
16					Tree D not on grid # = 33	J <sup>2</sup> 2.45 K 2.75	
17						D 2.45 -	
18						-R	Q 2.15
19						-	G <sup>2</sup> 2.4
20						U <sup>2</sup> 2.2 -	
≥30	6/8	3/6	3/10	5/8	4/11	3/5	4/13
							(?M) 2.7

within 0.5, not significant

on  
map?

\*\* Tree ID is HK's letter designation, in the relative order reflected in planting matrix

\* row nos. refer to proximity to stn. rd, NOT to HK's matrix designations on the official planting diagram



2002 Apple Creek - Seed Orchard (cont)

Row#	9	10	11	12	13	14	15	16	AG-4 %
------	---	----	----	----	----	----	----	----	--------

1	B 2.2							733(1)-3.2	
2	M 2.85	L 2.8						(2)-2.5	
3	J 2.05	H 3.55						(3)-4.0	
4	S 4.3	-						(4)-3.3	
5	O 3.3	-						(5)-3.0	
6	K	N 2.9						(6)-2.2	
7	-	-						(7)-2.9	
8	U 2.5	T 2.45						929-2.8	
9	K 3.3	J 2.65						(8)-3.25	
10	Q 2.1	-						(9)-10.0	
11	G 1.45	F 2.4						927-3.3	
12	M 2.45	L 2.25							
13	K 2.34	J 2.45							
14	G 2.38	H 3.0							
15	U 2.30	-							
16	-	B 2.3							

17	O 2.8	N 3.7							AC-5?
18	L 2.8	M 1.85							
19	H 2.75	J 2.8							
20		K 2.85	T 2.1						
21				N 2.45					
22		F 2.35	Q 2.55	O 1.95	M 2.3				
23	L 2.9		G 3.2	U 1.75	L 2.6				
24	3.1		J 1.25	H 2.8	K 2.45				
25		Q 2.6	D 1.9						
27			T 2.95						
28				U 2.55					

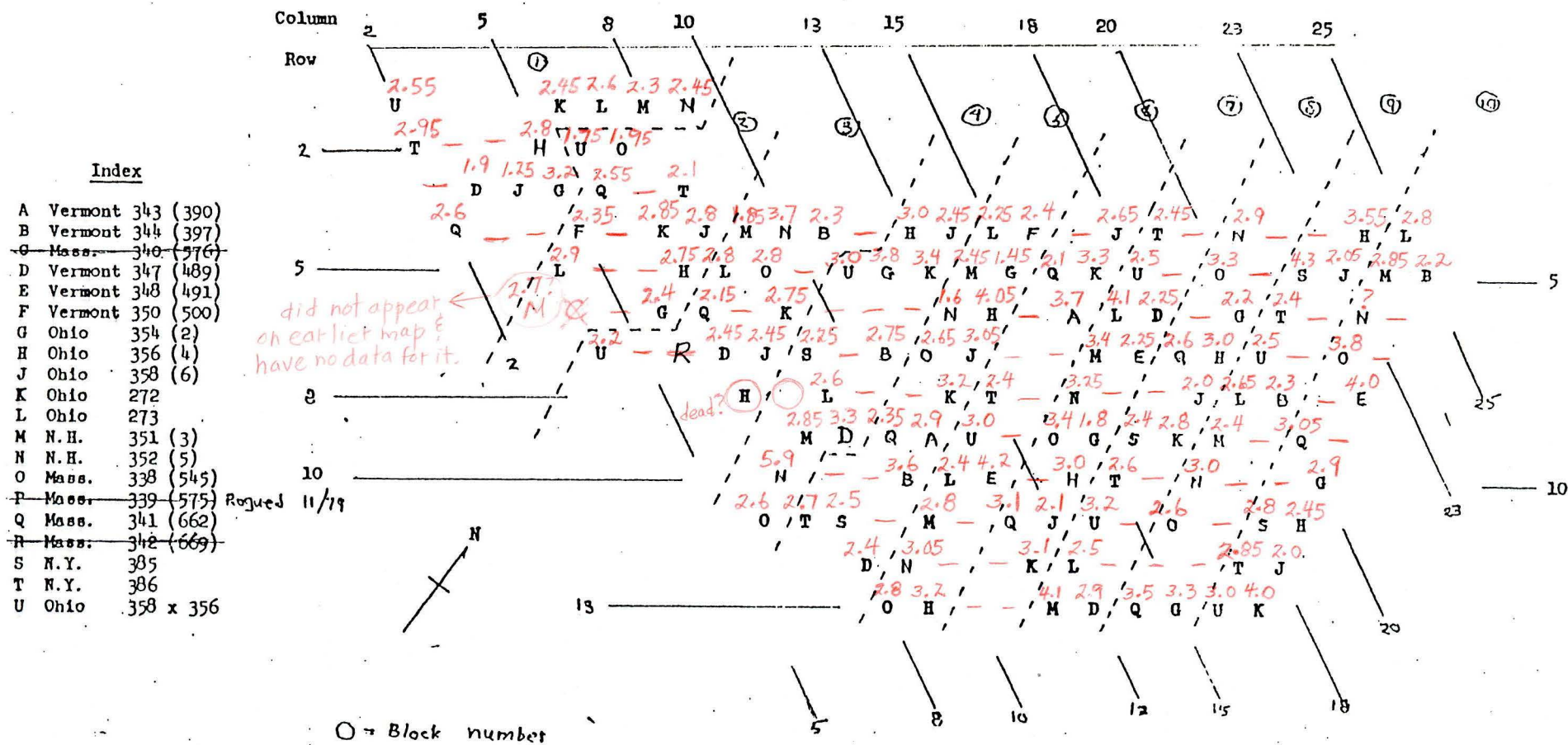


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

sugar test  
%  
2002

Initiated in April, 1958  
Spacing: 30 x 30' triangular





Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Fall, 1984 Roguing

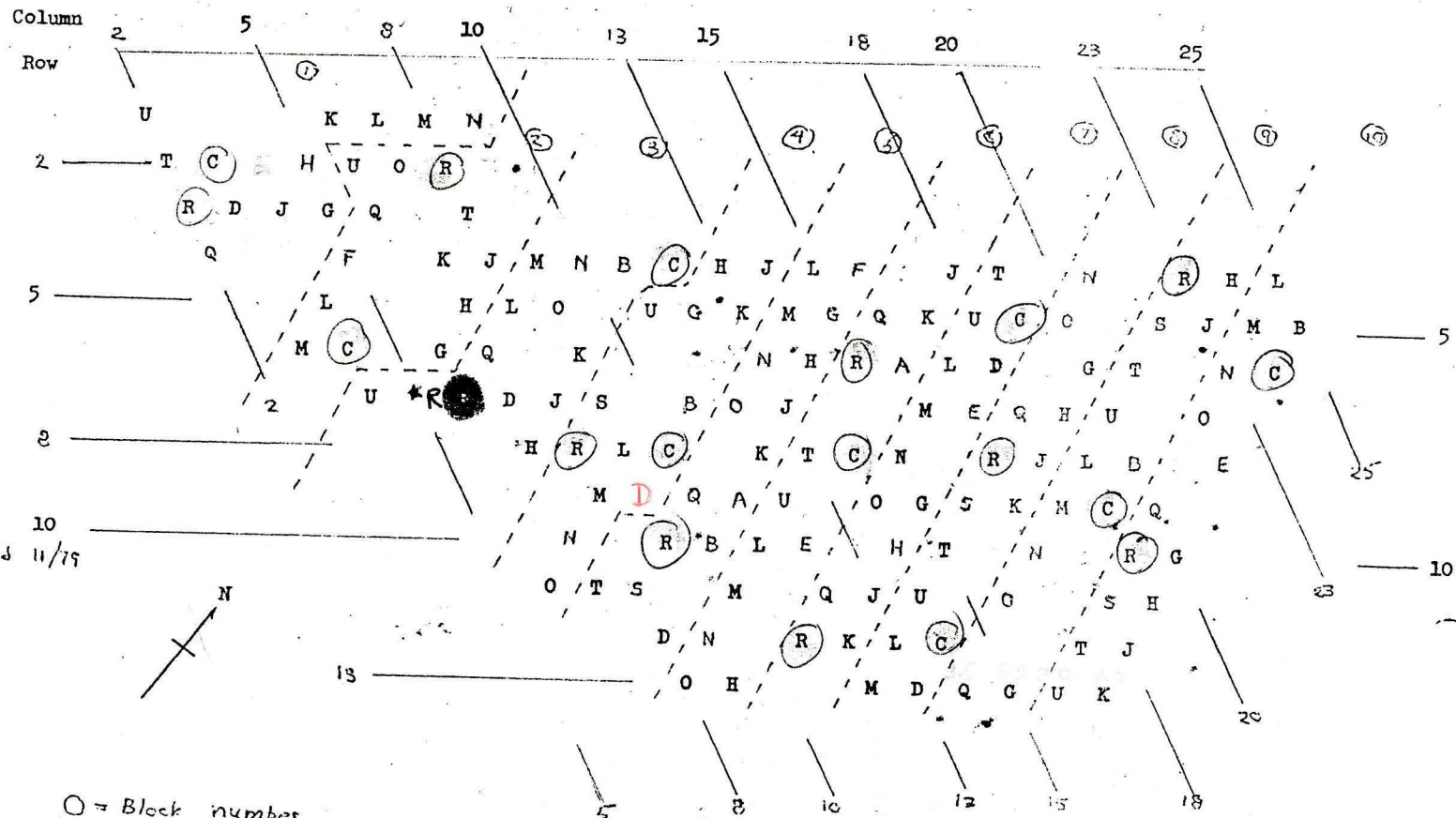
Initiated in April, 1958  
Spacing: 30 x 30' triangular

○ = Removed

● = Retained for possible hort. propagation

Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575) Rogued 11/79
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356



○ = Block number

\* only one of its clone retained

HEX 9-28-59  
Rev. 12-3-62  
Corr. 3-19-64



AC-1

Sugar Test (% X 10)\*

## REPLICATE

CLONE	DATE	1	2	3	4	5	6	7	8	9	10
272 K	1964			25		23		26	34	24	50
	1977							30	30		30
	1978	40	51	40	41	32	41	42	42		
	1982	45	39	42	35	29	45	35	41		50
	1984	33	35	39	46	41	37	33	29		36
	1986	52	30	28	46	40	36	38	34		37
	1987	36	40	32	40	35	38	39	38		28
	1988										
	2002	24.5	28.5	27.5	34	32	33	31	28		40
273 L	1964	35	45		42		45			42	33
	1977							30	38	27	23
	1978	30	40	37	28	43	60	34	44	33	
	1982	35	35	39	27	45	59	35	37		
	1984	35	40	36	37	36	49	89	38	42	41
	1986	27	32	36	28	36	48	66	42	36	44
	1987	35	28	27	27	38	40	69	39	27	33
	1988										
	2002	26	29	28	26	22.5	24	41	25	26.5	28
338 O	1964			56	54		26	47	68		56
	1977							45	49	40	32
	1978		51	49	46	44	56	52	54		
	1982		63	58	61	29	52	58		45	
	1984		41	40	50	40	44	49	49	38	41
	1986		68	38	40	38	34	48	70	46	64
	1987		35	43	49	32	56	36	56	43	38
	1988										
	2002		19.5	28	26	26.5	28	34	33	26	38
339 P	1964										
	1977										
	1978	25		27	24	22	21	42	47		
	1982										
	1984										
	1986										
	1987										
	1988										
	2002										
340 C	1964					50	29	26		49	32
	1977							25	38	17	22
	1978	22	27	29	29		38	33	53		
	1982		35	38	30		39		57		
	1984	23	32	40	32		37	39	37	27	30
	1986										
	1987										
	1988										
	2002		27								



Sugar Test (% X 10)\*

CLONE	DATE	REPLICATE									
		1	2	3	4	5	6	7	8	9	10
341 Q	1964		41							26	
	1977							34	38	34	34
	1978	67	33	37		52	30	49	47		
	1982	67	30	28		41	31	35	52	37	
	1984	65	38	40		53	36	36	53	50	35
	1986	50	26	30		46	30	36	62	52	46
	1987	38	28	28		46	27	32	38	40	31
	1988										
	2002	26	25.5	21.5		23.5	21	31	26	35	30.5
342 R	1964		28	27	25	41	41	43	23	30	34
	1977							28	35	25	36
	1978	38	41	31	31	34	32	36	33	34	
	1982	37	35	27	28	35	28	30	35		
	1984	38	32	39	30	40	36	29	38	33	26
	1986			26							
	1987			29							
	1988										
	2002										
343 A	1964										
	1977							60	29		
	1978					41	75				
	1982					41	63				
	1984					42	50				
	1986					42	52				
	1987					32	36				
	1988										
	2002					29	37				
344 B	1964										
	1977							28	42	31	22
	1978			50	49	60				41	
	1982			36	42	80					
	1984			45	47	47				50	39
	1986			22	48	46				34	36
	1987			33	40	40				35	28
	1988										
	2002			23	27.5	36				23	22
347 D	1964	43				60			46		
	1977							32	36		34
	1978	39		35	32	40		37	52		
	1982	31		32	50	40		29	52		
	1984	33		39	49	46		44	42		
	1986	20		36	42	36		34	46		
	1987	32		40	34	24		30	40		
	1988										
	2002	19		24.5	33	24		22.5	29		



Sugar Test (% X 10)\*

CLONE	DATE	REPLICATE									
		1	2	3	4	5	6	7	8	9	10
348 E	1964										
	1977							33	37		
	1978						47	42			
	1982						83	37			
	1984						60	37			43
	1986						52	38			54
	1987						47	22			36
	1988										
	2002						42	22.5			40
350 F	1964										
	1977							33	40		
	1978		46			44					
	1982		60								
	1984		41			31					
	1986		38			36					
	1987		35			48					
	1988										
	2002		23.5			24					
351 M	1964	33		31	46	44	43	14	52	52	46
	1977							20	31	22	28
	1978	43		31	58	27	35	25	38		
	1982	52		33	31	44	34	31	50	37	
	1984	48		34	35	36	31	27	47	37	33
	1986	44		24	26	34	28	40	38	46	30
	1987	57		25	31	36	33	29	33	32	33
	1988										
	2002	23		18.5	28.5	24.5	28	34	41	24	28.5
352 N	1964	33									
	1977							32	28	40	31
	1978	41		32	41	29	37	39	34		
	1982	47		62	59	30	30	58		45	
	1984	32		40	54	36	41	37	38	38	39
	1986	38		44	40	42	30	40	42	46	48
	1987	33		47	45	46	31	30	34	36	32
	1988										
	2002	24.5		37	59	16	30.5	32.5	29	30	
354 G	1964	32					49			30	41
	1977									39	41
	1978	46	34		41	28					
	1982	57			42	34				40	
	1984	44	40		47	30		34	33	58	36
	1986	44	28		48	24		32	34	64	50
	1987	32	28		32	24		31	24	44	35
	1988										
	2002	32	24		38	14.5		18	22	33	29



Sugar Test (% X 10)\*

CLONE	DATE	REPLICATE									
		1	2	3	4	5	6	7	8	9	10
356 H	1964			37	45	34	42		34	59	58
	1977							40	38	35	40
	1978	43	38	57	50	45	40	40	50	44	
	1982	51	60	44	53	43	32	39			
	1984	62	39	40	52	44	34	45	49	42	54
	1986	25	34	38	42	42	45	36	46	44	52
	1987	35	35	47	41	40	40	37	44	33	59
	1988										
	2002	28	27.5		30	40.5	32	30	30	35.5	24.5
358 J	1964	16	33	42	26	27	35	59		21	38
	1977							28	35	33	26
	1978	32	38	41	45	37	42	40	42	37	
	1982	50	45	42	39	40	39	42	43		45
	1984	36	32	35	35	39	45	42	41	36	36
	1986	21	26	36	28	44	42	30	28	48	20
	1987	25	31	28	47		31	36	28	30	24
	1988										
	2002	12.5	28	24.5	24.5	30.5	26.5	21	20	20.5	20
385 S	1964									33	
	1977							64	24	29	30
	1978				41	32			32	41	
	1982				44	30			34		31
	1984				42	34			33	37	22
	1986				32	18			44	38	36
	1987				30	39			34	30	38
	1988										
	2002				22.5	25			24	43	28
386 T	1964	32		42	40	34			35	53	39
	1977							30	30	27	30
	1978	42	38	46		54	33	50	31	35	
	1982	70	29			30	23		38		25
	1984	36	34			37	32	41	37	33	34
	1986	26	28			26	32	48	26	28	24
	1987	27	26			24	27	33	27	25	27
	1988										
	2002	29.5	21			27	24	24.5	26	24	28.5
733 U	1964	45		26	45	74	66	62	61	64	44
	1977							34	34	41	
	1978	38	50	39	48		57	36	41	42	
	1982	39	50	44	50		69	36	42		
	1984	42	37	37	47		75	47	37	49	31
	1986	44	24	26	38		66	46	28	36	40
	1987	46	31	28	47		74	39	40	44	32
	1988	35	35	24	46		54	25	36	23	
	2002	25.5	17.5	22	30		30	25	32	25	30

\*All data except 2002 collected by Dr. Howard B. Kriebel, OARDC, Wooster, Ohio



## Sugar Test (% X 10)

## REPLICATE

CLONE	DATE	1	2	3	4	5	6	7	8	9	10
272 K	1964	19									
	1965										
	1977										
	1978	✓40	✓51	✓40	✓41	✓32	✓41	✓42	✓42		✓
	1982	✓45	✓39	✓42	✓35	✓29	✓45	✓35	✓41		✓50
	1984	✓33	✓35	✓39	✓46	✓41	✓37	✓33	✓29		✓36
	1986	✓52	✓30	✓28	✓46	✓40	✓36	✓38	✓34		✓37
	1987	✓36	✓40	✓32	✓40	✓35	✓38	✓39	✓38		✓28
	1988										
	2002	24.5	28.5	27.5	34	32	33	31	28		40
273 L	1964	35									
	1965										
	1977										
	1978	✓30	✓40	✓37	✓28	✓43	✓60	✓34	✓44	✓33	✓
	1982	✓35	✓35	✓39	✓27	✓45	✓59	✓35	✓37	✓	✓
	1984	✓35	✓40	✓36	✓37	✓36	✓49	✓89	✓38	✓42	✓41
	1986	✓27	✓32	✓36	✓28	✓36	✓48	✓66	✓42	✓36	✓44
	1987	✓35	✓28	✓27	✓27	✓38	✓40	✓69	✓39	✓27	✓33
	1988										
	2002	26	29	28	26	22.5	24	41	25	26.5	28
338 O	1964										
	1965										
	1977										
	1978		✓51	✓49	✓46	✓44	✓56	✓52	✓54	✓	✓
	1982		✓63	✓58	✓61	✓29	✓52	✓58	✓	✓45	✓
	1984		✓41	✓40	✓50	✓40	✓44	✓49	✓49	✓38	✓41
	1986		✓68	✓38	✓40	✓38	✓34	✓48	✓70	✓46	✓64
	1987		✓35	✓43	✓49	✓32	✓56	✓36	✓56	✓43	✓38
	1988										
	2002		19.5	28	26	26.5	28	34	33	26	38
340 C	1964										
	1965										
	1977										
	1978	22	27	29	29		38	33	53		
	1982		35	38	30		39		57		
	1984	23	32	40	32		37	39	37	27	30
	1986										
	1987										
	1988										
	2002		27								
341 Q	1964										
	1965										
	1977										
	1978	✓67	✓33	✓37		✓52	✓30	✓49	✓47	✓ <del>37</del>	✓
	1982	✓67	✓30	✓28		✓41	✓31	✓35	✓52	✓37	✓
	1984	✓65	✓38	✓40		✓53	✓36	✓36	✓53	✓50	✓35
	1986	✓50	✓26	✓30		✓46	✓30	✓36	✓62	✓52	✓46
	1987	✓38	✓28	✓28		✓46	✓27	✓32	✓38	✓40	✓31
	1988										
	2002	26	25.5	21.5		23.5	21	31	26	35	30.5



	1	2	3	4	5	6	7	8	9	10
342 R	1964									
	1965									
	1977									
	1978	38	41	31	31	34	32	36	33	34
	1982	37	35	27	28	35	28	30	35	
	1984	38	32	39	30	40	36	29	38	33
	1986			26						26
	1987			29						
	1988									
	2002									
343 A	1964	0								
	1965									
	1977									
	1978					✓41	✓75			
	1982					✓41	✓63			
	1984					✓42	✓50			
	1986					✓42	✓52			
	1987					✓32	✓36			
	1988									
	2002					29	37			
344 B	1964	33								
	1965									
	1977									
	1978			✓50	✓49	✓60			✓41	✓
	1982			✓36	✓42	✓80			✓	✓
	1984			✓45	✓47	✓47			✓50	✓39
	1986			✓22	✓48	✓46			✓34	✓36
	1987			✓33	✓40	✓40			✓35	✓28
	1988									
	2002			23	27.5	36			23	22
347 D	1964									
	1965									
	1977									
	1978	✓39		✓35	✓32	✓40		✓37	✓52	
	1982	✓31		✓32	✓50	✓40		✓29	✓52	
	1984	✓33		✓39	✓49	✓46		✓44	✓42	
	1986	✓20		✓36	✓42	✓36		✓34	✓46	
	1987	✓32		✓40	✓34	✓24		✓30	✓40	
	1988									
	2002	19		24.5	33	24		22.5	29	
348 E	1964									
	1965									
	1977									
	1978					✓47	✓42			✓
	1982					✓83	✓37			✓
	1984					✓60	✓37			✓43
	1986					✓52	✓38			✓54
	1987					✓47	✓22			✓36
	1988									
	2002					42	22.5			40



		1	2	3	4	5	6	7	8	9	10
350 F	1964	0									
	1965										
	1977										
	1978		✓46			✓44					
	1982		✓46.60			✓					
	1984		✓60.41			✓31					
	1986		✓41.38			✓36					
	1987		✓38.35			✓48					
351 M	1988		<del>38</del>								
	2002		23.5			24					
	1964										
	1965										
	1977	①	③	④							
	1978	✓43	✓31	✓58		✓27	✓35	✓25	✓38	✓	✓
	1982	✓52	✓33	✓31		✓44	✓34	✓31	✓50	✓37	✓
	1984	✓48	✓34	✓35		✓36	✓31	✓27	✓47	✓37	✓33
352 N	1986	✓44	✓24	✓26	→	✓34	✓28	✓40	✓38	✓46	✓30
	1987	✓57	✓25	✓31		✓36	✓33	✓29	✓33	✓32	✓33
	1988										
	2002	23	18.5	28.5		24.5	28	34	41	24	28.5
	1964										
	1965										
	1977	①	③	④							
	1978	✓41	✓23.32	✓41.7		✓29	✓37	✓39	✓34	✓	✓
354 G	1982	✓47	✓40.62	✓89.59		✓30	✓30	✓58	✓	✓45	✓
	1984	✓32	✓40	✓54	→	✓36	✓41	✓37	✓38	✓38	✓39
	1986	✓38	✓44	✓40		✓42	✓30	✓40	✓42	✓46	✓48
	1987	✓33	✓47	✓45		✓46	✓31	✓30	✓34	✓36	✓32
	1988										
	2002	24.5	37	59		16	30.5	32.5	29	30	
	1964										
	1965										
356 H	1977										
	1978	✓46	✓34		✓48.41	✓28		✓	✓	✓	✓
	1982	✓57	✓		✓30.42	✓34		✓	✓	✓40	✓
	1984	✓44	✓40		✓47	✓30		✓34	✓33	✓58	✓36
	1986	✓44	✓28		✓38.48	✓24		✓32	✓34	✓64	✓50
	1987	✓32	✓28		✓47.32	✓24		✓31	✓24	✓44	✓35
	1988										
	2002	32	24		38	14.5		18	22	33	29
358 J	1964										
	1965										
	1977										
	1978	✓43	✓38	✓57	✓50	✓45	✓40	✓40	✓50	✓44	✓
	1982	✓51	✓60	✓44	✓53	✓43	✓32	✓39	✓	✓	✓
	1984	✓62	✓39	✓40	✓52	✓44	✓34	✓45	✓49	✓42	✓54
	1986	✓25	✓34	✓38	✓42	✓42	✓45	✓36	✓46	✓44	✓52
	1987	✓35	✓35	✓47	✓41	✓40	✓40	✓37	✓44	✓33	✓59
	1988										
	2002	28	27.5		30	40.5	32	30	30	35.5	24.5
	1964										
	1965										
	1977										
	1978	✓32	✓38	✓41	✓45	✓37	✓42	✓40	✓42	✓37	✓
	1982	✓50	✓45	✓42	✓39	✓40	✓39	✓42	✓43	✓	45
	1984	✓36	✓32	✓35	✓35	✓39	✓45	✓42	✓41	✓36	✓36
	1986	✓21	✓26	✓36	✓28	✓44	✓42	✓30	✓28	✓48	✓20
	1987	✓25	✓31	✓28	✓47	✓	✓31	✓36	✓28	✓30	✓24
	1988										
	2002	12.5	28	24.5	24.5	30.5	26.5	21	20	20.5	20



	1	2	3	4	5	6	7	8	9	10
385 S	1964									
	1965									
	1977									
	1978				✓41	✓32			✓32	✓41
	1982				✓44	✓30			✓34	✓31
	1984				✓42	✓34			✓33	✓37
	1986				✓32	✓18			✓44	✓38
	1987				✓30	✓39			✓34	✓30
	1988									
	2002				22.5	25			24	43
386 T	1964									
	1965									
	1977									
	1978	✓42	✓ <del>29</del> 38	✓46		✓54	✓33	✓50	✓31	✓35
	1982	✓70	✓ <del>24</del> 29	✓		✓30	✓23	✓	✓38	✓ <del>28</del> 25
	1984	✓36	✓34	✓		✓37	✓32	✓41	✓37	✓33
	1986	✓26	✓28	✓		✓26	✓32	✓48	✓26	✓28
	1987	✓27	✓26			24	✓27	✓33	✓27	✓25
	1988									
	2002	29.5	21			27	24	24.5	26	24
733 U	1964	45								
	1965									
	1977									
	1978	✓38	✓50	✓39	✓48		✓57	✓36	✓41	✓42
	1982	✓39	✓50	✓44	✓50		✓69	✓36	✓42	✓
	1984	✓42	✓37	✓37	✓47		✓75	✓47	✓37	✓49
	1986	✓44	✓24	✓26	✓38		✓66	✓46	✓28	✓36
	1987	✓46	✓31	✓28	✓47		✓74	✓39	✓40	✓44
	1988	35	35	24	46		54	25	36	23
	2002	25.5	17.5	22	30		30	25	32	25

339 P 1978

1	2	3	4	5	6	7	8	9	10
25		27	24	22	21	42	47	-	-



3/15/03

Dear Chuck

In case I can't reach you by phone before I head out, thanks for everything! Please thank Cheryl & Marie, too for all their care and attention to my immediate needs. The pole pruner was a life-saver out at AC-1! I sheared one of those YAN-kee drill bits in one of the trees in row 3. Drove out to Lehman's to buy a replacement, but their inventory of bits were all narrow shank, wouldn't fit your drill. Anyway, let me know what I owe you for that. I ended up renting a drill from →



Tracor down on E. Bowman. They were very helpful in setting me up on short notice.

Well, I better be off - had to skip the Auction, but Dutch Heart was great!

All the Best to you.

Tom Barbrault

Chuck Vrotney



Row# 9 10 11 12 13 14 15 16 AC-4 %

1	B 2.2							733(1)-3.2
2	M 2.85	L 2.8						(2)-2.5
3	J 2.05	H 3.55						(3)-4.0
4	S 4.3	-						(4)-3.3
5	O 3.3	-						(5)-3.0
6		N 2.9						(6)-2.2
7	-	-						(7)-2.9
8	U 2.5	T 2.45						929-2.8
9	K 3.3	J 2.65						(8)-3.25
10	Q 2.1	-						(9)-10.0
11	G 1.45	F 2.4						927-3.3
12	M 2.45	L 2.25						
13	K 2 3.4	J 2.45						
14	G 2 3.8	H 2 3.0						
15	U 2 3.0	-						
16	-	B 2.3						
17	O 2 2.8	N 2 3.7						

= communication with Bababoult 2004

AC-5?

18	L 1 2.8	M 1.85							
19	H 2.75	J 3 2.8							
20	-	K 2.85	I 2.1						
21					N 2.45	335-5.5	332-3.0	323-2.6	335-3.05
22		F 2.35	Q 2.55	O 1.95	M 2.3	323-3.25	323-3.75	324-2.65	330-2.6
23	L 2 { 2.9		G 3.2	U 1.75	L 2.6				
24	3.1								
25		Q 2.6	J 1.25	H 2.8	K 2.45				
26			D 1.9						
27			T 2.95						
28				U 2.55					

2 sugar values for same tree

what's this value?

323-3.7



Row # Apple Creek - Sweet gum trees on grid

Tree ID	1	2	3	4	5	6	7	8
1	K 4.0	J 2.0	H 2.45	G 2.9	—	E 4.0	—	—
2	U 3.0	T 2.85	S' 2.8	—	Q' 3.05	—	O' 3.8	N ??
3	G 3.3	—	—	—	—	B 2.3	—	—
4	Q 3.5	—	O' 2.6	N' 3.0	M' 2.4	L' 2.65	U' 2.5	T 2.4
5	D 2.9	—	—	—	K 2.2	J 2.0	H 3.0	G' 2.2
6	M 4.1	L 2.5	U 3.2	T 2.6	S 2.4	—	Q 2.6	—
7	—	K 3.1	J 2.1	H 3.0	G 1.8	—	E 2.25	D 2.25
8	—	—	Q 3.1	—	O 3.4	N 3.25	M 3.4	L 4.1
9	H 3.2	—	—	E 4.2	—	—	—	A 3.7
10	O 2.8	N 3.05	M 2.8	L 2.4	U 3.0	T 2.4	—	—
11	—	D 2.4	—	B 3.6	A 2.9	K 3.2	J' 3.05	H 4.05
12	—	—	S <sup>2</sup> 2.5	—	Q <sup>2</sup> 2.35	—	O <sup>2</sup> 2.65	N <sup>2</sup> 1.6
13	—	—	T 2.7	—	—	—	B 2.75	—
14	—	—	O <sup>2</sup> 2.6	N <sup>2</sup> 5.9	M <sup>2</sup> 2.85	L <sup>2</sup> 2.6	—	—
15	—	—	—	—	—	H dead	S 2.25	—
16	—	—	—	—	—	↙ ↘	J 2.45	K 2.75
17	—	—	—	—	—	—	D 2.45	—
18	—	—	—	—	—	—	R	Q 2.15
19	—	—	—	—	—	—	—	G <sup>2</sup> 2.4
20	—	—	—	—	—	—	U <sup>2</sup> 2.2	—
≥30	6/8	3/6	3/10	5/8	4/11	3/5	4/13	?M 2.7 3/12

AC-1

= Communication with Baribault 2004

Tree D  
not on  
grid  
#33

not on map?  
young dead

within 0.5, not significant

\*\* Tree ID is HK's letter designation, in the relative order reflected in planting matrix  
 \* row nos. refer to proximity to S&T ID, NOT to HK's matrix designation as on the official planting diagram



## Sugar Maple Seed Orchard AC-1

Seed  
1978

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

U	1	1	2 733	0	0	0	0	0	0	35	1	38	39	42	44	46	35	25.5
A	1	1	3 343 390	0	0	0	0	-	-									-
B	1	1	4 344 397	0	2	0	0	0	0									-
F	1	1	5 350 500	0	0	0	0	-	-									-
K	1	1	6 272	0	0	0	0	0	0			40	45	33	52	36		24.5
L	1	1	7 273	0	0	0	0	0	0			30	33	35	27	35		26
M	1	1	8 351 3	0	1	0	0	0	0			43	<del>52</del> 48	44	57			23
N	1	1	9 352 5	0	0	0	0	0	0			41	47	32	38	33		24.5
H	1	2	5 356 4	0	1	0	0	0	0			43	51	62	25	35		28
E	1	2	4 348 491	0	2	0	0	0	0									-
C	1	2	3 <sup>340 576</sup> 345 463	0	1	0	0	0	0	<del>30</del>		22		23				-
T	1	2	2 386	0	0	0	0	0	2	30	3	42	70	36	26	27		29.5
S	1	3	1 385	0	0	0	0	0	0									-
R	1	3	2 342 669	0	0	0	0	0	2	29		38	37	38				-
D	1	3	3 347 489	0	0	0	0	0	0	29	2	39	31	33	20	32		19
J	1	3	4 358 6	0	0	0	0	0	0			32	50	36	21	25		12.5
G	1	3	5 354 2	0	0	0	0	0	0			46	57	44	44	32		32
O	1	4	4 338 595	0	1	0	0	-	-				<del>35</del>					-
P	1	4	3 339 575	0	0	0	1	0	0	27		25	-					-
Q	1	4	2 341 662	0	1	0	0	0	0	76		67	67	65	50	38		26
M	2	6	3 351 3	0	0	0	0	-	-	<del>30</del>			-					-
C	2	6	4 <sup>340 576</sup> 345 463	0	0	0	0	0	0			27	<del>35</del> 32					27
B	2	6	5 344 397	0	0	0	0	0	0									-
G	2	6	6 354 2	0	0	0	0	0	0			34		40	28	28		24
H	2	5	7 356 4	0	0	0	0	0	0			38	60	39	34	35		27.5
A	2	5	6 343 390	0	0	0	0	0	0									-
D	2	5	5 347 489	0	0	0	0	0	0									-
L	2	5	4 273	0	0	0	10	0	5			40	5 <sup>(1)</sup> <del>35</del> 40	32	28			29
N	2	5	3 352 5	0	1	0	0	-	-									-
F	2	4	5 350 500	0	0	0	0	0	0			46	60	41	38	35		23.5
E	2	4	6 348 491	0	2	0	0	-	-									-
K	2	4	7 272	0	0	0	0	0	0			51	39	35	30	40		28.5
J	2	4	8 358 6	0	0	15	5	0	0	<del>4?</del> 1		38	45	32	26	31		28
T	2	3	8 386	0	0	0	1	0	2	2		38	29	34	28	26		21
P	2	3	7 339 575	0	0	0	0	0	0			28	-					-
Q	2	3	6 341 662	0	0	0	0	0	0			33	36	38	26	28		25.5
U	2	2	6 733	0	0	0	0	0	0			50	50	37	24	31	35	17.5



# Sugar Maple Seed Orchard AC-1

Seed  
1978

Block  
Row  
Column  
Acc. No.  
Coll. No.

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

O	1	2	7	338545	0	0	0	0	0	0		51	63	41	68	35	19.5
R	2	2	8	342669	0	0	0	0	0	0		41	35	32			-
S	2	2	9	385	0	1	0	0	-	-			44				-
M	3	4	9	3513	0	0	0	0	0	0	29	31	33	34	24	25	18.5
N	3	4	10	3525	0	1	0	0	0	0		32	62	40	44	47	37
B	3	4	11	344397	0	1	0	0	0	0		50	36	45	22	33	23
C	3	4	12	340 576 345 463	0	1	0	0	0	0		29	38	40			-
(X) A	3	5	10	343390	0	0	0	0	0	0							-
O	3	5	9	338545	0	0	0	0	0	0		49	58	40	38	43	28
L	3	5	8	273	0	0	0	1	0	5	3	37	5 <sup>(H)</sup>	39	36	36	27
Q	3	6	7	341662	0	0	0	0	0	0		37	28	40	30	28	21.5
P	3	6	8	339575	0	0	0	0	0	0	3	27	-				-
K	3	6	9	272	0	0	0	0	0	0		40	42	39	28	32	27.5
J	3	7	8	3586	0	0	0	0	0	0		41	42	35	36	28	24.5
D	3	7	7	347489	0	0	0	1	0	2	3	35	32	39	36	40	24.5
R	3	7	6	342669	0	0	0	0	0	0		31	27	39	26	29	-
T	3	7	5	386	0	0	0	2	1	1	3	46	-				-
U	3	7	4	733	0	0	0	0	0	0		39	44	37	26	28	24
✓ S	3	8	5	385	0	2	0	0	0	0							-
✓ E	3	8	6	348491	0	1	0	0	0	0							-
H	3	8	7	3564	0	0	0	0	0	0		57	44	40	38	47	-
G	3	9	6	3542	0	1	0	0	-	-							-
F	3	9	5	350580	0	0	0	0	-	-							-
O	4	11	6	338545	0	0	0	0	0	0		46	61	50	40	49	26
N	4	10	7	3525	0	1	0	0	0	0		41	59	54	40	45	59
P	4	10	6	339575	0	0	0	0	0	0		24	-				-
Q	4	9	7	341662	0	0	0	0	-	-			-				-
M	4	9	8	3513	0	0	0	0	0	0		58	31	35	26	31	28.5
D	4	9	9	347489	0	1	0	0	0	0		32	50	49	42	34	33
C	4	8	10	340 576 345 463	0	0	0	0	0	0		29	30	32			-
L	4	8	9	273	0	0	0	13	8	6	6	10	28	5 <sup>(H)</sup>	27	37	28
R	4	8	8	342669	0	0	0	0	0	0		31	28	30			-
Top- worked 1962 S	4	7	9	385	0	0	0	0	0	0		41	44	42	32	30	22.5
E	4	7	10	348491	0	0	0	0	-	-							-
B	4	7	11	344397	0	2	0	0	0	0		49	42	47	48	40	27.5
(X) A	4	6	12	343390	0	0	0	0	0	0							-



Sugar Maple Seed Orchard AC-1

Seed  
1978

Block  
Row  
Column  
Acc. No.  
Coll. No.

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

(X) F	4	6	11	350500	0	0	0	0	0	0							
T	4	6	10	386	0	0	0	3									
U	4	5	11	733	0	0	0	0	0	0							
G	4	5	12	354 2	0	1	0	0	0	0							
K	4	5	13	272	0	0	0	0	0	0							
H	4	4	13	356 4	0	0	0	0	0	0							
J	4	4	14	358 6	0	0	0	1	0	0							
check L	5	4	15	273	0	1	0	0	0	0							
F	5	4	16	350500	0	0	0	0	0	0							
G	5	5	15	354 2	0	1	0	0	0	0							
M	5	5	14	351 3	0	0	0	0	0	0							
N	5	6	13	352 5	0	1	0	0	0	0							
H	5	6	14	356 4	0	0	0	0	0	0							
J	5	7	13	358 6	0	0	0	1	0	0							
O	5	7	12	338545	0	1	0	0	0	0							
P	5	8	11	339575	0	0	0	0	0	0							
K	5	8	12	272	0	0	0	9	0	6							
(X) A	5	9	11	343390	0	0	0	0	0	0							
Q	5	9	10	341662	0	1	0	0	0	0							
U	5	10	8	733	0	0	0	0									
R	5	10	9	342669	0	0	0	7	0	0							
B	5	10	10	344397	0	2	0	0	0	0							
C	5	11	9	345463	0	0	0	0									
S	5	11	8	385	0	1	0	0	0	0							
T	5	11	7	386	0	0	0	0	0	2							
E	5	12	7	348491	0	0	0	0									
D	5	12	8	347489	0	0	1	2	0	3							
O	6	13	8	338545	0	0	0	0	0	0							
H	6	13	9	356 4	0	0	0	0	0	0							
G	6	12	10	354 2	0	0	1	0									
N	6	12	9	352 5	0	2	0	0	0	0							
M	6	11	10	351 3	0	0	0	0	0	0							
F	6	11	11	350500	0	0	0	0									
L	6	10	11	273	0	1	0	0	0	0							
E	6	10	12	348491	0	2	0	0	0	0							
U	6	9	12	733	0	0	0	0	0	0							

48 50 47 38 47 46 30  
41 42 47 48 32 38  
41 35 46 46 40 34  
50 53 52 42 41 30  
13.13 45 5 39 35 28 47 24.5  
43 45 36 36 38 22.5  
44 31 36 48 24  
28 34 30 24 24 14.5  
27 44 36 34 36 24.5  
29 30 36 42 46 16  
45 43 44 42 40 40.5  
37 40 39 44 - 30.5  
44 5 29 40 38 32 26.5  
2 2 22 - -  
32 5 29 41 40 35 32  
41 41 42 42 32 29  
52 41 53 46 46 23.5  
- - - -  
34 35 40 - -  
60 80 47 46 40 36  
- - - -  
32 30 34 18 39 25  
3 3 54 30 37 26 24 27  
- - - -  
2 2 40 40 46 36 24 24  
56 52 44 34 56 28  
40 82 34 45 40 32  
- - - -  
37 30 41 30 31 34.5  
35 34 31 28 33 28  
- - - -  
60 59 49 48 40 24  
47 83 60 52 47 42  
2 - 57 69 75 66 74 54 30



Sugar Maple Seed Orchard AC-1

Block  
Row  
Column  
Acc. No.  
Coll. No.

Seed  
1978

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

✓ D	6	9	13347489	0	2	0	0	0	0								
T	6	8	13386	0	0	0	1	0	2		2	2	33	23323227		24	
C	6	8	14 <sup>340 576</sup> <del>345463</del>	0	0	0	0	0	0				38	39	37		
S	6	7	14385	0	0	0	0	0	0								
(X) B	6	7	15344397	0	0	0	0	0	0								
R	6	6	15342669	0	0	0	0	0	0				32	2836			
A	6	6	16343390	0	0	0	0	0	0				75	63505236		37	
Q	6	5	16341662	0	1	0	0	0	0				30	31363027		21	
K	6	5	17272	0	0	0	0	0	0				41	45373638		33	
P	6	4	17339575	0	0	0	0	0	0		12	-	21				
J	6	4	183586	0	0	0	0	0	0		43	-	42	39454231		26.5	
T	7	4	19386	0	1	0	0	0	0	30			50	414833		24.5	
B	7	4	20344397	0	2	0	0	0	0	28							
C	7	5	19 <sup>340 576</sup> <del>345463</del>	0	1	0	0	0	0	25			33	39			
U	7	5	18733	0	0	0	0	0	0	34			36	3647463925		25	
L	7	6	17273	0	0	0	0	0	430				34	35896669		41	
OK D	7	6	18347489	0	1	0	1	0	0	32			37	29443430		22.5	
E	7	7	17348491	0	2	0	0	0	0	33			42	37373822		22.5	
M	7	7	163513	0	0	0	0	0	0	20			25	31274029		34	
N	7	8	153525	0	0	0	0	0	0	32			39	58374030		32.5	
(X) F	7	8	16350300	0	0	0	0	0	0	33							
G	7	9	153542	0	0	0	0	0	0	-				343231		18	
O	7	9	14338545	0	0	0	0	0	0	45			52	58494836		34	
P	7	10	13339575	0	1	0	0	0	0	40			42				
H	7	10	143564	0	1	0	0	0	0	40			40	39453637		30	
J	7	11	133586	0	0	9	10	0	0	28			40	42423036		21	
Q	7	11	12341662	0	1	0	0	0	0	34			49	35363632		31	
R	7	12	11342669	0	0	0	0	0	0	28			36	3029			
K	7	12	12272	0	0	7	4	0	0	30	42	-	42	35333839		31	
(X) A	7	13	11343390	24	0	0	0	0	0	60							
S	7	13	10385	0	1	0	0	0	0	64							
M	8	13	123513	0	0	0	0	0	0	31			38	50473833		41	
D	8	13	13347489	0	0	0	0	0	0	36			52	52424640		29	
L	8	12	13273	23	0	15	0	0	0	38			44	37384239		25	
C	8	12	14 <sup>340 576</sup> <del>345463</del>	0	1	0	0	0	0	38			53	5737			
U	8	11	14733	0	0	0	0	0	0	34			41	423728403632			



Sugar Maple Seed Orchard AC-1

Seed  
1978

Block  
Row  
Column  
Acc. No.  
Coll. No.

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

✓	B	8	11	15	344397	0	2	0	0	0	0	42					
	T	8	10	15	386	0	0	0	1	1	3	30	3	3	31	38	37 26 27 26
(X)	A	8	10	16	343390	0	0	0	0	0	0	29					
	S	8	9	16	385	0	2	0	0	0	0	24		32	34	33 44 34	24
	K	8	9	17	272	0	0	0	1	0	0	30		42	41	29 34 38	28
	R	8	8	17	342669	0	0	0	0	0	0	35		33	35	38	
Top-wind not registered successful or unsuccess- ful	J	8	8	18	3586	23	0	0	0	0	0	35		42	43	41 28 28	20
	Q	8	7	18	341662	0	1	0	0	0	0	38		47	52	53 62 38	26
	H	8	7	19	3524	0	0	0	0	0	0	38		50		49 46 44	30
	P	8	6	19	339575	0	0	0	0	0	0	39		47			
	G	8	6	20	3541	0	0	0	0	0	0					33 34 24	22
	O	8	5	20	338345	0	0	0	1	0	0	49	1	-	54	49 70 56	33
✓	F	8	5	21	350500	0	2	0	0	0	0	40					
	N	8	4	21	3525	0	1	0	0	0	0	28		34		38 42 34	29
✓	E	8	4	22	348491	0	2	0	0	0	0	37					
	R	9	4	23	342669	0	0	0	0	0	0	25		34		33	
	H	9	4	24	3564	0	0	0	0	0	0	35		44		42 44 33	35.5
	J	9	5	23	3586	0	0	4	7	0	0	33		37		36 48 30	20.5
	S	9	5	22	385	0	0	0	0	0	0	29		41		37 38 30	43
	T	9	6	21	386	0	0	1	3	1	2	27	3	13	35	33 28 25	24
	K	9	6	22	272	0	0	0	0	0	0	dying					
	A	9	7	21	343390	0	0	0	0								
	U	9	7	20	733	0	0	0	0	0	0	41	2	-	42	49 36 44 23	25
	L	9	8	19	273	0	0	0	6	8	6	27		33	5 <sup>(H)</sup>	42 36 27	26.5
	B	9	8	20	344397	0	2	0	0	0	0	31		41		50 34 35	23
	C	9	9	19	<sup>340 576</sup> 345463	0	0	0	0	0	0	17				27	
	M	9	9	18	3513	0	0	0	0	0	0	22				37 37 46 32	24
	N	9	10	17	3525	0	1	0	0	0	0	40				45 38 46 36	30
Top-wind OK	D	9	10	18	347489	0	0	0	0								
	E	9	11	17	348491	0	0	0	0								
	O	9	11	16	338545	0	1	0	0	0	0	40				45 38 46 43	26
	P	9	12	15	339575	0	0	0	0	0	0	25	7	-			
	F	9	12	16	350500	0	0	0	0				-	-			
	G	9	13	15	3542	0	0	0	0	0	0	39				40 58 64 44	33
	Q	9	13	14	341662	0	0	0	0	0	0	34				37 50 52 40	35



Sugar Maple Seed Orchard AC-1

[illegible]



7

					Plantation AC-1																													
Block	Row	Column	Acc. No.	Coll. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25					
U	1	1	2733		1	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	3	1	0	4	5	0	0	0	2	8	0	2	6	
A	1	1	3343396		5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
B	1	1	4344397		5	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	4		
F	1	1	5350500		0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
K	1	1	6272		2	0	0	0	0	2	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	9	0	0	0		
L	1	1	7273		1	1	1	0	0	3	0	0	1	1	1	3	8	8	0	1	0	4	0	3	5	0	0	0	1	3	0	0		
M	1	1	83513		5	1	0	0	1	0	1	0	1	1	0	0	0	0	1	0	0	0	3	3	0	0	0	2	2	0	0	0		
N	1	1	93525		2	0	0	0	1	3	0	2	0	1	1	3	5	1	0	0	3	6	0	3	3	0	0	0	2	5	0	2	2	
H	1	2	53564		1	1	1	0	0	3	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
E	1	2	4348491		5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	1	5	1	4		
C	1	2	3345463		3	1	1	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
T	1	2	2386		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	3	1	0	3	2	0	0	0	2	3	0	2	6	
S	1	3	1385		0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
R	1	3	2342669		1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	2	0	2	2	
D	1	3	3347489		3	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	4	3	0	0	0	3	2	0	2	6		
J	1	3	43586		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	1	6	0	0	0	1	8	0	1	4		
G	1	3	53542		5	1	0	0	1	3	0	2	1	1	1	3	4	1	8	0	1	0	0	0	3	2	0	0	0	2	1	0	1	3
O	1	4	4338595		0	0	0	0	1	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P	1	4	3339575		5	1	1	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	2	8	0	0	0	0	0	0	0	0	0	
Q	1	4	2341662		0	0	0	0	1	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	6	33513		1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	6	4345463		3	1	1	2	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	6	5344397		5	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	4	6	0	0	0	2	1	0	8		
	2	6	63542		2	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	5	73524		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	4	0	0	0	
	2	5	6343390		5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	1	8	0	0	0	
	2	5	5347489		3	1	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	4	4	0	0	0	0	0	0	1	6	
	2	5	4273		1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	4	5	0	0	0	2	9	0	2	0	0	
	2	5	33525		1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	4	5350500		3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	7	
	2	4	6348491		5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	4	7272		3	1	1	2	0	0	1	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	4	83586		0	0	0	0	1	3	0	0	1	1	0	0	0	0	1	2	1	7	0	3	3	0	0	0	2	4	0	2	2	
	2	3	8386		3	1	1	2	0	2	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	
	2	3	7339575		5	1	1	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	3	0	0	0	0	0	1	5	0	1	7	
	2	3	6341662		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	4	1	0	0	0	1	8	0	2	0	0	
	2	2	6733		1	1	1	0	0	2	1	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3	0	0	0	







## Sugar Maple Seed Orchard AC-1

Block	Row	Column	Acc. No.	Coll. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
4	6	11	350	500	5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0
4	6	10	386		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	40	0	0	0	0	0	21
4	5	11	733		1	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	0	0	45	0	0	0	19	0	0
4	5	12	354	2	2	0	0	0	1	3	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4	5	13	272		1	1	1	1	0	3	1	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	14
4	4	13	356	4	0	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	45	0	0	0	0	0	21
4	4	14	358	6	1	1	1	0	0	3	0	0	1	1	0	0	0	0	1	0	0	0	26	0	0	0	0	0	30
5	4	15	273		3	1	1	2	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5	4	16	350	500	3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	0
5	5	15	354	2	1	0	0	0	1	3	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5	5	14	357	3	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	44	0	0	0	22	0	20
5	6	13	352	5	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5	6	14	356	4	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	34	0	0	0	18	0	42
5	7	13	358	6	1	1	1	0	0	2	0	0	1	1	0	0	0	0	1	0	0	0	27	0	0	0	14	0	26
5	7	12	338	545	1	1	1	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5	8	11	339	575	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5	8	12	272		3	1	1	2	0	0	1	2	0	1	0	0	0	0	1	0	0	0	23	0	0	0	16	0	21
5	9	11	343	370	5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	16
5	9	10	341	662	0	0	0	0	1	3	0	2	1	0				1	0	0	0	0	0	0	0	0	0	0	0
5	10	8	733		1	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	0	0	74	0	0	0	34	0	27
5	10	9	342	669	1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	41	0	0	0	24	0	0
5	10	10	344	377	5	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	57	0	34
5	11	9	345	443	3	1	1	2	0	0	0	1	0	0	0	0	0	1	1	0	0	0	56	0	0	0	0	0	0
5	11	8	385		5	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5	11	7	386		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	34	0	0	0	21	0	0
5	12	7	348	491	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	12	8	347	489	5	1	1	0	0	0	0	2	0	1	0	0	0	0	1	1	0	0	60	0	0	0	31	0	14
6	13	8	338	545	1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	26	0	0	0	0	0	0
6	13	9	356	4	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	42	0	0	0	0	0	0
6	12	10	354	2	1	0	0	0	1	3	0	0	1	1	0	0	0	0	1	0	0	0	49	0	0	0	0	0	0
6	12	9	352	5	1	0	0	0	1	2	0	1	0	0	0	0	0	1	0	0	0	0	44	0	0	0	0	0	0
6	11	10	351	3	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	43	0	0	0	21	0	18
6	11	11	350	500	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	10	11	273		1	1	1	1	0	1	0	2	0	1	0	0	0	0	1	0	0	0	45	0	19	0	0	0	20
6	10	12	348	491	5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	9	12	733		1	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	0	0	66	0	40	0	41	0	33



## Sugar Maple Seed Orchard AC-1

					Sugar Maple Seed Orchard AC-1																								
Block	Row	Column	Acc. No.	Coll. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
6	9	13	347489		3	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	46	0	22	0	14	15
6	8	13	386		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	42	0	0	0	0	0	0	0	17
6	8	14	345463		5	1	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	29	0	0	0	0	0	17
6	7	14	385		5	1	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	46	0	20	0	0	19
6	7	15	344397		5	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	43	0	16	0	08	14
6	6	15	342669		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	41	0	04	0	0	0	18
6	6	16	343390		3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	08	0	25	
6	5	16	341662		1	1	1	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
6	5	17	272		3	1	1	2	0	0	1	2	0	1	0	0	0	0	1	0	0	0	0	05	0	0	0	20	
6	4	17	339575		5	1	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	30	0	0	0	0	0	14
6	4	18	3586		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	2	37	0	35	0	07	0	0	0	22
7	4	19	386		1	1	1	0	0	3	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7	4	20	344397		5	1	1	0	0	2	0	1	0	0	0	0	0	1	0	0	0	30	0	0	0	05	0	0	16
7	5	19	345463		3	1	1	2	0	0	0	1	0	0	0	0	0	1	1	0	50	0	26	0	21	0	0	0	17
7	5	18	733		0	0	0	0	0	2	1	2	0	1	0	0	0	0	1	0	0	0	62	0	31	0	0	0	30
7	6	17	273		3	1	1	2	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	21
7	6	18	347489		5	1	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	38	0	0	0	0	0	22
7	7	17	348491		5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	33	0	26	0	0	0	0	16
7	7	16	3513		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	14	0	05	0	0	0	20
7	8	15	3525		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	19
7	8	16	350500		3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	50	0	38	0	19	0	0	10
7	9	15	3542		1	1	1	0	0	3	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	15
7	9	14	338545		0	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	47	0	10	0	0	0	33
7	10	13	339575		5	1	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	29	0	10	0	14	0	21
7	10	14	3564		2	1	1	0	0	3	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7	11	13	3586		0	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	59	0	23	0	26	0	21
7	11	12	341662		1	1	1	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7	12	11	342669		0	0	0	0	1	3	0	0	1	1	0	0	0	0	1	0	0	0	43	0	19	0	0	0	20
7	12	12	272		1	0	1	2	0	0	1	0	1	1	0	0	0	0	1	0	0	0	26	0	0	0	16	0	15
7	13	11	343390		5	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	35	0	22	0	23	0	0
7	13	10	385		0	1	0	0	0	2	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8	13	12	3513		2	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	52	0	28	0	0	0	0
8	13	13	347489		3	1	1	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	46	0	22	0	0	0	22
8	12	13	273		2	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8	12	14	345463		3	1	1	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
8	11	14	733		1	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	0	0	61	0	32	0	0	0	25



Block	Row	Column	Acc. No.	Coll. No.	Sugar Maple Seed Orchard AC-1																								
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
8	11	15	344	397	5	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	43	0	15	0	0	16
8	10	15	386		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	35	0	11	0	0	0	21
8	10	16	343	390	5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	37	0	11	0	0	16	
8	9	16	385		0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8	9	17	272		5	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	0	0	34	0	15	0	0	0	15
8	8	17	342	669	2	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	27	0	23	0	15	0	0	0	17
8	8	18	358	6	0	0	0	0	1	3	0	2	0	0	0	0	0	1	1	2	0	0	0	0	0	36	0	0	0
8	7	18	341	662	1	0	0	0	1	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8	7	19	356	4	1	1	1	0	0	2	1	2	0	1	0	0	0	0	1	0	0	0	34	0	25	0	0	0	34
8	6	19	339	575	5	1	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	29	0	17	0	0	0	19
8	6	20	354	2	1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8	5	20	338	545	0	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	68	0	30	0	0	0	22
8	5	21	350	500	3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	49	0	32	0	0	23
8	4	21	352	5	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8	4	22	348	491	5	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	51	0	47	0	24	0	0	18
9	4	23	342	669	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	27	0	30	0	16	0	0	0	17
9	4	24	356	4	1	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	47	0	59	0	46	0	0	0	21
9	5	23	358	6	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	36	0	21	0	25	0	0	0	17
9	5	22	385		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	33	0	33	0	14	0	0	0	15
9	6	21	386		1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	53	0	18	0	0	0	20
9	6	22	272		1	1	1	0	0	3	1	2	0	1	0	0	0	0	1	0	38	0	24	0	20	0	0	0	13
9	7	21	343	390	1	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	7	20	733		5	1	1	0	0	0	1	2	0	1	0	0	0	0	1	0	0	0	64	0	31	0	0	0	33
9	8	19	273		3	1	1	2	0	0	0	2	0	1	0	0	0	0	1	0	26	0	42	0	28	0	0	0	21
9	8	20	344	397	5	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	49	0	0	0	0	31
9	9	19	345	463	3	1	1	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	49	0	0	0	0	0	12
9	9	18	351	3	0	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	52	0	32	0	0	0	21
9	10	17	352	5	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9	10	18	347	489	3	1	1	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	16
9	11	17	348	491	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	11	16	338	545	0	0	0	0	1	2	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9	12	15	339	575	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	0	28	0	22	0	0	0	17
9	12	16	350	500	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	13	15	354	2	0	0	0	0	1	3	0	2	0	1	0	0	0	0	1	0	0	0	30	0	16	0	0	0	16
9	13	14	341	662	1	1	1	0	0	3	0	2	0	1	0	0	0	0	1	0	0	0	26	0	13	0	0	0	0







AC-1 CHRONOLOGICAL NOTES

1. 6- 3-58 Survival. 0= dead, 1= alive, 2= alive, questionable survival, 3= bud dead, stock alive, 4= alive, green tissue, no buds broken, 5= not yet budded.
2. 9- 9-58 Survival. 0= dead, 1= alive.
3. 10-29-58 Survival. 0= dead, 1= alive.
4. 10-29-58 Budding of trees. 0= not budded, 1= budded (good), 2= budded (no good).
5. 10-30-58 Replacements. 1= replacement made, 0= no replacement made this date.
6. 7- 7-59 Survival. 0= absent, rootstock alive, 1= scion alive but survival doubtful, 2= no stock, 3= graft living and healthy.
7. Fall. 1959 Replacements. 1= replacement made, 0= no replacement made this date.
8. 10- 4-60 Survival. 0= tree missing, 1= absent, rootstock alive, 2= graft living and healthy.
9. 10-~~24-30~~-60 Replacements. 0= no replacement made this date. 1= replacement made.
10. 9-1-61 Survival. 1= alive, 0= dead.
11. Record of replacements. 0= original tree was of same clone, 1= original tree was not of same clone.
12. Accession no. of the original tree in cases where the original tree was replaced with a tree of a different clone. 0= accession no. of present tree is same as that of original.
13. Columns whose data pertain to the original tree. For example: a number 7 entered in column 13 indicates that the data in columns 1-7 pertain to an earlier tree of different clone and not to the present tree in that same location. 0= data in all columns pertain to trees of the same clone.
14. 9- 6-61 Replacements. 1= replacement made, 0= no replacement made this date.



4-23-62

Grafting. The following trees received grafts from scions of trees of the same clone elsewhere within the plantation: Accession no. 347 in row 5 and column 5, Accession no. 347 in row 7 and column 7, Accession no. 347 in row 6 and column 18, Accession no. 347 in row 10 and col. 18, Accession no 385 in row 7 and column 9, Accession no. 385 in row 7 and column 14, Accession no. 358 in row 8 and column 18.

Of these grafts the following were living on 4-27-64 and their stocks were cut back: Accession 347 in row 7 and column 7, Accession no. 385 in row 7 and col. 9, Accession no. 347 in row 6 and column 18, Accession no. 347 in row 10 and column 18.

Grafts of the following trees were dead on 4-27-64: Accession no. 347 in row 5 and column 4, Accession no 385 in row 7 and column 14.

15. 12- 3-62 Survival. 0= no tree, 1= graft living and healthy.
16. 4-23-64 Flowering. 0= no flowers this date, 1= ♂ flowers present, 2= ♀ flowers present.
17. 3- 3-64 Sap tests. (% X 10) 0= no test made this date.
18. 3- 3-64 Sap tests (% X 10) 0= no test made this date. Tests were made from rootstock, not from graft.
19. 3-13-64 Sap tests. (% X 10) 0= no test made this date.
20. 3-13-64 Sap tests (% X 10) 0= no test made this date. Tests were made from rootstocks, not from grafts.
21. 3-19-64 Sap tests. (% X 10) 0= no test made this date.
22. 3-19-64 Sap tests. (% X 10) 0= no test made this date. Tests were made from rootstocks and not from grafts.
23. 3-24-64 Sap tests. (% X 10) 0= no test made.
24. 3-24-64 Sap test. (% X 10) 0= no tests made this date. Tests were made from rootstocks, not from the grafts.
25. 4- 5-65 Sap tests. (% X 10) 0= no test made this date.
26. 4- 5-65 Sap tests (% X 10) 0= no test made this date. Tests were made from rootstocks, not from grafts.
- 4- 6-65 Tree (accession no. 273) was replaced. Position on map - row 12, column 13.
- 4-13-65 Flowering. Information on separate sheet.  
to  
5- 6-65



AC-1 CHRONOLOGICAL NOTES

27. 10-23-65 Rootstock replacement. 0= neither graft nor rootstock replaced this date. 1= new rootstock. 2= original rootstock.
28. 4-22-66 Flowering. 1= ♂ light, 2= ♂ medium, 3= ♂ heavy, 4= ♀ light, 5= ♀ medium, 6= ♀ heavy, 7= ♂ and ♀ light, 8= ♀ medium and ♂ light, 9= ♀ heavy and ♂ light, 10= ♀ light and ♂ medium, 11= ♀ medium and ♂ medium, 12= ♀ heavy and ♂ medium, 13= ♀ light and ♂ heavy, 14= ♀ medium and ♂ heavy, 15= ♀ heavy and ♂ heavy, 0= no flowers this date.
29. 4-17-67 Flowering. Keyed as above in column 28.  
4-17-67 Tree (Accession no. 273, row 12, col. 13) is dead.  
4-17-23-68 Flowering. Information on separate sheets.
30. 4-29-74 Flowering. Keyed as in column 28.
31. 4/76 ~~Sugar tests (% x 10)~~ Flowering, keyed as in Col. 28
32. 3/8/77 Sugar tests (% x 10)
33. 3-20-77 Sugar test (% x 10)
34. 5-1-78 Flowering, keyed as in column 28
35. 5-24-78 Flowering, keyed as in column 28
36. 3-7-78 Sugar test (% x 10)
37. 9-78 Seed production. L = light, M = medium, H = heavy (see maps of flowering).
38. 2-23-82 Sugar test (% x 10)
39. 3-14-84 Sugar test (% x 10). See separate sheet
40. 3-5-86 Sugar test (% x 10) See separate sheet
41. 3-6-87 Sugar test (% x 10) See separate sheet
42. 3-10-88 Sugar test - family 733 only - see separate sheet (% x 10)
43. 3-2002 Sugar test (% x 10), measurements by T. Baribault, Vermont



AC-1

### Operations Log

1. August, 1960 All trees fertilized.
2. March 12, 1964 Blocks 2, 3, 5, 7, and 9, were fertilized with 3/4 pound of Ammonium Nitrate per tree to a radius of 4 feet.
3. March 4, 1968 Fertilized (Ammonium nitrate)
4. May 2, 1968 Sprayed (2 lbs atrazine + 2 lbs simazine/A)
5. November 25, 1968 Pruned
6. November, 1977 Ungrafted rootstock trees removed (see map)
7. November, 1979 All trees of clone 339 removed
8. June 14, 1984 Cuttings taken by OSU student (see Chuck Aten)
4. October, 1984 All trees of clones 340 and 342 removed



Photographs  
(Plus-X)

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

15 March 88

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-C6)

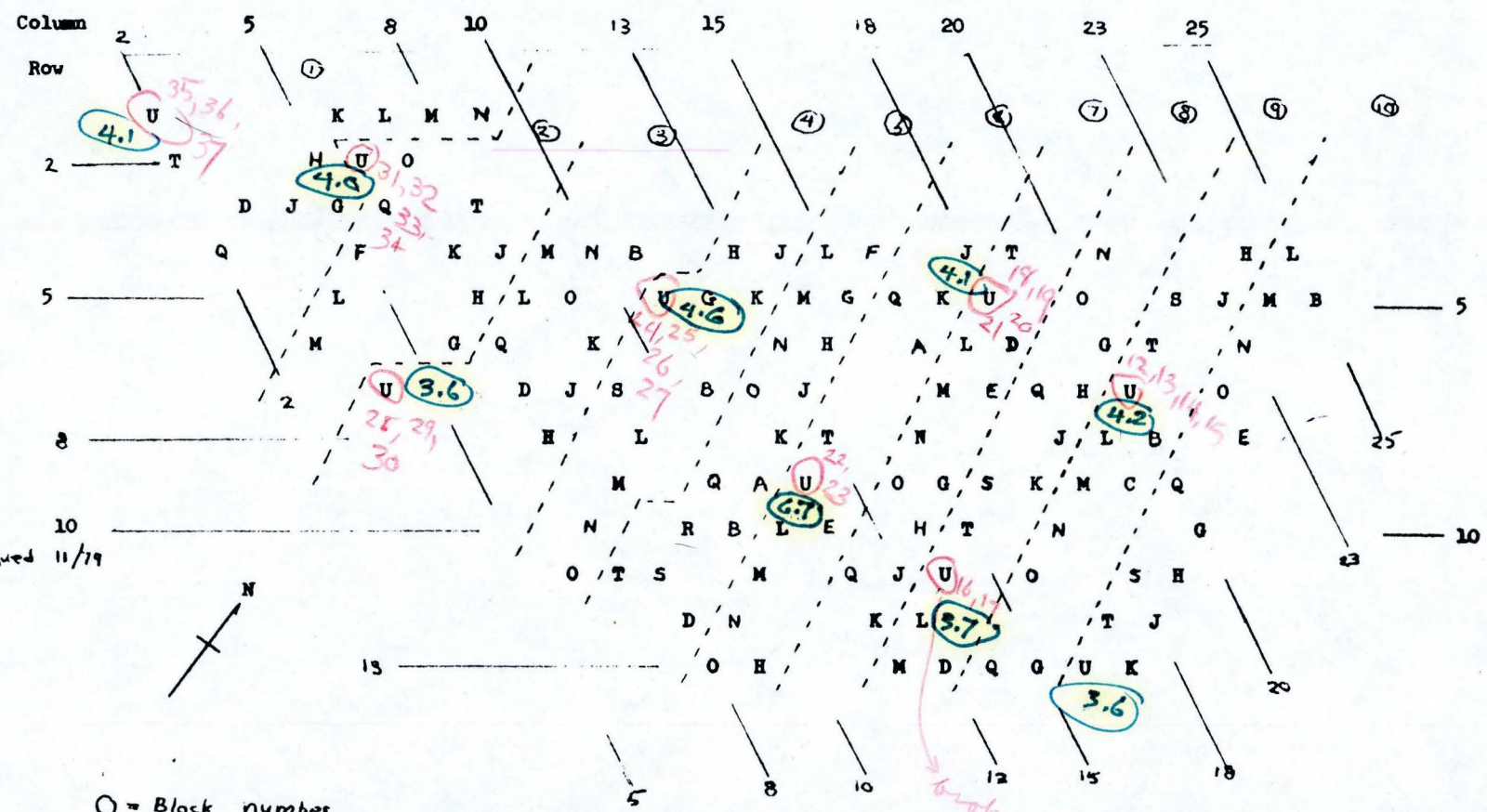
18, 19 hornet's nest  
20 - cleanup of  
branches

33 - branches

Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356

Rogued 11/79



Green number - mean sugar % 1978-86  
(4 years)

HM 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84





STYLE NO. 35-98

INSERT EMULSION SIDE DOWN

DATE

ASSIGNMENT

FILE NO.

KODAK PX 5062

KODAK PX 5062

KODAK PX 5062



KODAK PX 5062

KODAK PX 5062

KODAK PX 5062

KODAK PX 5062

KODAK PX



KODAK PX 5062

KODAK PX 5062

KODAK PX 5062

KODAK PX 5062

KODAK PX 5062



14

15

16

17

18

19



KODAK PX 5062

KODAK PX 5062

KODAK PX 5062

KODAK P



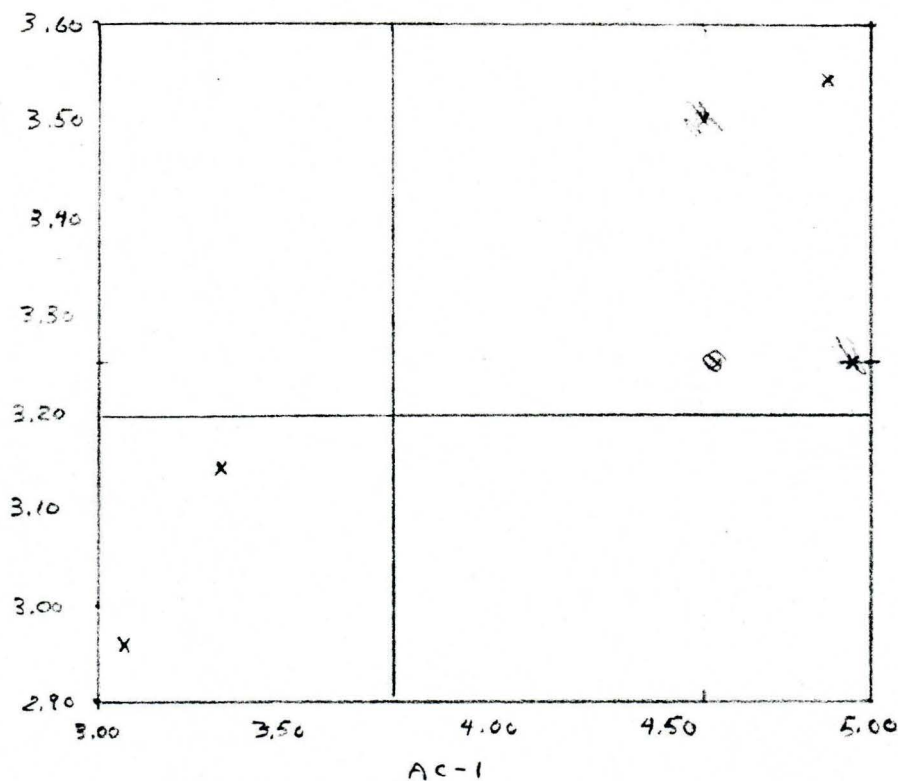
AC-1

# Corner Tests of Association (Steel & Torrie, Table A.20)

of families  
in progeny  
tests

AC-land  
Hopkins test  
(Williamstown, MA)

Hopkins

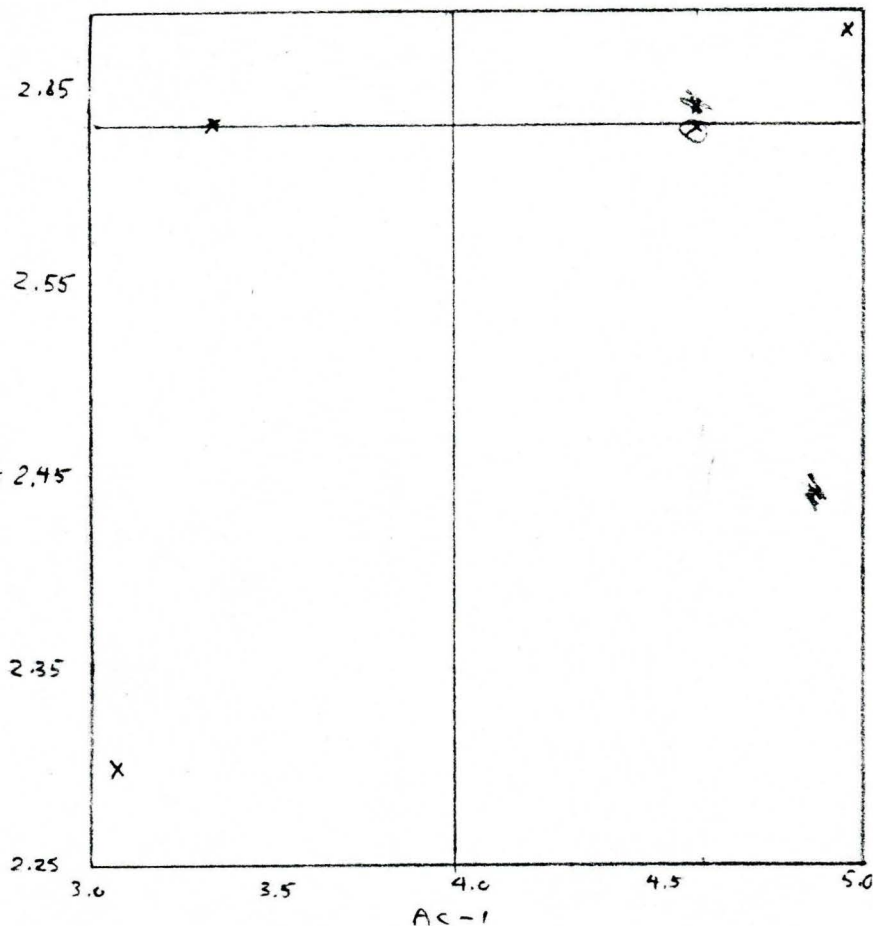


Direction	Number
Down	2
Left	2
Up	2
Right	2
Quadrant Sum	8
	N.S.

AC-1 and

Proctor  
(Vermont test) Proctor 2.45

Proctor 2.45



Direction	Number
Down	1
Left	1
Up	1
Right	1
	4
	N.S.



## "SUPERSWEET" MAPLE SYRUP SELECTIONS

For further information,  
contact H. B. Kriebel  
Dept of Forestry  
OARDC  
Wooster, OH 44691

\* Clones from which individual seedlots were collected in 1984



# Inter-office communication

to: Jim Stafford date: 2/4/88  
from: Roger Hendershot *RM*  
subject: HY Sugar Maple Seeding Data

<u>HY SUGAR MAPLE SEEDED</u>	<u>INVENTORY</u>	<u>LBS. SOWED</u>
1976	60568 (1-0)	88.0
1977-1982	none seeded	
1983	10842 (2-0)	14.0
1984	13764 (2-0)	25.0
1985	27456 (2-0)	31.3
1986	32686 (1-0)	39.0

*145,316 trees*

No actual figures on what was graded.

RDG:mfh

Balance of 1987 collection in storage at Zanesville- 49.0 lbs.



(X) - TAGGED TO PICK

(X) - PICKED

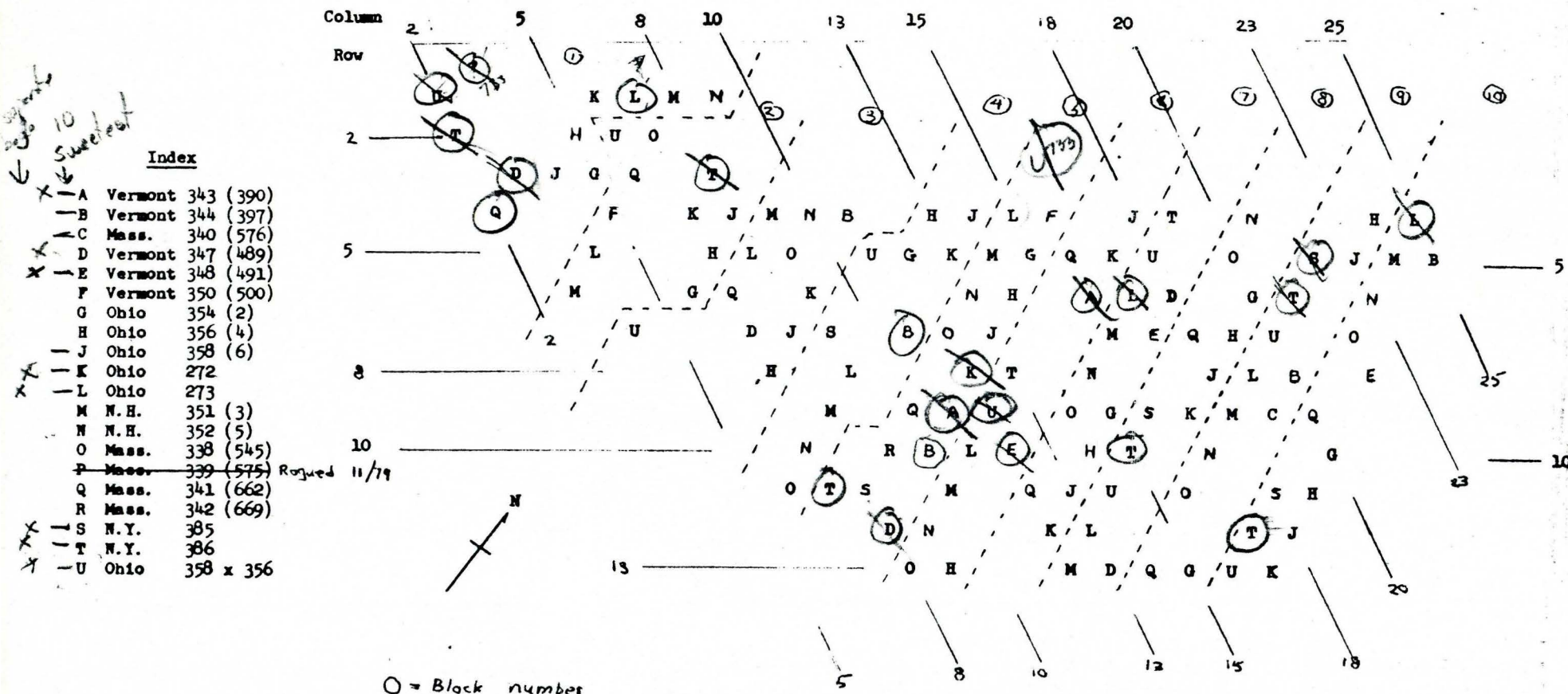
# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

1987 Collection

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-66)





# Total High-Yield Collection by ~~Family~~

2501	✓	Vermont	343✓	6 bu	(uncleaned) A
2502	✓	Vermont	344	13.5 bu	" B
2503	✓	Vermont	348✓	3 bu	" E
2504	✓	Vermont	347	1 bu	" D
2506	✓	Ohio	272	6 bu	" K
2507	✓	Ohio	273	5 1/2 bu	" L
2508	✓	New York	386✓	1 1/4 bu	" T
2509	✓	New York	385✓	2 1/2 bu	" S
2510	✓	MASS.	340341	1 bu	" Q
2511	✓	Ohio	358+356✓	1 3/4 bu	" U
		Unidentified by source.		5 1/2 bu	"

47.00 bu = 1133# cleanup seed



Oct 1984  
From Jim Stefford, Zanesville Nursery

Total High-Yield Collection by ~~Family~~ Family  
(AC-1)

Vermont 343	6 bu (uncleaned)	
Vermont 344	13.5 bu	"
Vermont 348	3 bu	"
Vermont 347	1 bu.	"
Ohio 272	6 bu	"
Ohio 273	5 1/2 bu.	"
New York 386	1 1/4 bu	"
New York 385	2 1/2 bu	"
Mass. 340	1 bu	"
Ohio 358-356	1 3/4 bu	"
Unidentified by source.	5 1/2 bu	"

---

47.00 bu = 133 # cleaned seed



# Clone - Ortel Comparisons (Roadside ortets only)

(1)

Clone no.		no. of ramets	no. of year- means	Clone mean %	<sup>by</sup> 1984 45 78-86	Ortel no. of obs.	Ortel mean %	
338 (545) MA	9	24	5.0	4.8	4.9	13	4.7	same
356 OH	10	27	4.4	4.6	4.4	20	3.4	higher
341 (662) MA	9	21	4.0	4.3	4.3	20	4.4	same
354 OH	7	15	3.9	3.8	4.0	18	3.2	higher
386 NY	10	25	3.7	3.9	3.6	4-yr. means	4.8	lower
358 OH	10	31	3.7	3.9	3.8	19	3.6	higher
351 NH	9	28	3.7	3.7	3.7	?	6.0	lower
385 NY	6	11	3.6	3.4	3.5	7-yr. means	4.0	lower
340 (576) MA	10	21	3.4	3.3		18	4.0	lower
342 (669) MA	10	30	3.3	3.3		15	4.2	lower

## Summary

	before 1984	by 1984	by 1986
no. of clones exceeding ortet	4	6	4
no. of clones lower than ortet	6	4	4

\* excludes forest-type ortets, which averaged lower in sugar content and are therefore consistently exceeded by their ramets. Form of roadside trees compares well that of ramets.

Seedling family	no. of ramets	no. of yr. means	Family mean %	<sup>by</sup> 1984 Parents	no. obs.	mean %
					♀ ♂	♀ ♂
733	10	24	5.0	4.4	19 20	3.6 3.4

\*\* controlled cross of the 2 best Ohio trees



Test of among- ~~vs~~ within clone variation  
in sap sugar content

Source	DF	SS	MS	F	PROB
Among clone	18	90.302	5.017	4.854	<.00
Within clone	357	348.999	1.034		
Total	375	459.302			

Summary

Variation among trees (clones) was ~~scarcely~~  
~~five times as great as variation among~~  
~~ramets~~ significant



Sugar 70

AC - 1  
Family 733

10 Mar 1988

	1	2	3	4	5	6	7	8	9	10	$\bar{x}$	$\sigma_{n-1}$
733	3.5	3.5	2.4	4.6	-	5.4	2.5	3.6	2.3	No reading*	3.475	1.100
								(4 years)				
	ANOVAR (see below)			(compare with ANOVA 2 in Variance component analysis (45))								
			Source	d.f.	SS		MS		F			
			Reps	7	42.83		6.11.86					
			Years	5	922		184.40		4.790	**		
			Error	34	1309		38.50					
			Total	46	6514							

\* Tree partly dead

	Replicate (tree) (733)											
	1	2	3	4	5	6	7	8	9	10		
1978	38	50	39	48	-	57	36	41	42	351	15759	4.39
1982	39	50	44	50	-	69	36	42	42	372	18042	4.65
1984	42	37	37	47	-	75	47	37	49	371	18315	4.64
1986	44	24	26	38	-	66	46	28	36	308	13184	3.85
1987	46	42*	28	47	-	74	39	40	44	360	17406	4.50
1988	35	35	24	46	-	54	25	36	23	278	10508	3.48
6 yrs	4.07	3.97	3.30	4.60		6.58	3.82	3.73	3.93	$\Sigma^2 =$	93214	
5 yrs	4.18	4.06	3.48	4.60		6.82	4.08	3.76	4.26	$\bar{x} = 4.25$		

Missing plot (Freese 1974):

$X = \frac{bB + tT - G}{(b-1)(t-1)} = \frac{8(196) + 6(318)}{7 \times 5}$	$G = 1998$	(Total X)
	$B = 196$	(Total not black)
	$T = 318$	(Total not treated)

$$X = \frac{3476 - 1998}{35} = 42^*$$

$\Sigma X$	244	238	198	276		395	229	224	236			
$\Sigma X^2$	10006	9934	6862	12782		26383	9063	8494	9690	$\Sigma^2 = 93214$		

$$C.T. = \frac{(2040)^2}{48} = 86700$$

$$\text{Total SS} = 93214 - 86700 = 6514 \quad 46 \text{ d.f.}$$

$$\text{Year SS} = 700974 - 86700 = 922 \quad 5 \text{ d.f.}$$

$$\text{Replicate SS} = 545898 - 86700 = 4283 \quad 7 \text{ d.f.}$$

$$\text{Error SS} = 6514 - 922 - 4283 = 1309 \quad 34 \text{ d.f.}$$



KRIESEL  
Hatch 432  
6 Mar 86

(7-75 Summary)  
AC-1 SUGAR MAPLE TESTS - SUGAR PERCENT X10

Page (1)

Clone	Year of Test	Replicate (tree)										Range
		1	2	3	4	5	6	7	8	9	10	
272	78	40	51	40	41	32	41	42	42			32-51
	82	45	39	42	35	29	45	35	41		50	29-45
	84	33	35	39	46	41	37	33	29		36	29-46
	86	52	30	28	46	40	36	38	34		37	28-52
273	78	30	40	37	28	43	60	34	44	33		28-60
	82	35	35	39	27	45	59	35	37			27-59
	84	35	40	36	37	36	49	89	38	42	41	35-89
	86	27	32	36	28	36	48	66	42	36	44	27-66
(545)	78		51	49	46	44	56	52	54			44-56
	82		63	58	61	29	52	58		45		29-63
	84		41	40	50	40	44	49	49	38	41	38-50
	86		68	38	40	38	34	48	70	46	64	38-70
(662)	78	67	33	37		52	30	49	47			30-67
	82	67	30	28		41	31	35	52	37		28-67
	84	65	38	40		53	36	36	53	50	35	35-65
	86	50	26	30		46	30	36	62	52	46	26-62
(390)	78					41	75					41-75
	82					41	63					41-63
	84					42	50					42-50
	86					42	52					42-52
(397)	78			50	49	60				41		41-60
	82			36	42	80						36-80
	84			45	47	47				50	39	39-50
	86			22	48	46				34	36	22-48
(489)	78	39		35	32	40		37	52			32-52
	82	31		32	50	40		29	52			31-52
	84	33		39	49	46		44	42			33-49
	86	20		36	42	36		34	46			20-46



1987 Summary  
(6 March measurements)

SUGAR % x 10

				Replicate		(Tree)							
Clone	1	2	3	4	5	6	7	8	9	10	n	$\bar{x}$	
K 272	36	40	32	40	35	38	39	38		28	9	3.62	
L 273	35	28	27	27	38	40	69	39	27	33	10	3.63	
O 338		35	43	49	32	56	36	56	43	38	9	4.31	
Q 341	38	28	28		46	27	32	38	40	31	9	3.42	
A 343					32	36					2	3.40	
B 344			33	40	40				35	28	5	3.52	
D 347	32		40	34	24		30	40			6	3.33	
E 348						47	22			36	3	3.50	
F 350		35			48						2	4.15	
M 351	57		25	31	36	33	29	33	32	33	9	3.43	
N 352	33		47	45	46	31	30	34	36	32	9	3.71	
G 354	32	28		32	24		31	24	44	35	8	3.12	
H 356	35	35	47	41	40	40	37	44	33	59	10	4.11	
J 358	25	31	28	47		31	36	28	30	24	9	3.11	
S 385				30	39			34	30	38	5	3.42	
T 386	27	26			24	27	33	27	25	27	7	2.74	
U 733	46	31	28	47		74	39	40	44	32	8	4.38	

16 clones

$\Sigma x = 396.22$

$\Sigma x^2 = 11589.34$

$\bar{x} = 24.763$

$\sigma_n = 10.546$

$\Sigma n = 112$  (16)

$\sigma_{n-1} = 10.886$

$\Sigma n = 120$  (17)

Weighted mean:

$396.22 \div 112 = 3.54$

$\bar{x}_n = 7.06$  (17)

16 clones + 1 family

$\Sigma x = 431.26$

$\Sigma x^2 = 12817.14$

$\bar{x} = 25.368$

$\sigma_n = 10.507$

$\sigma_{n-1} = 10.831$

Weighted mean:

$431.26 \div 120 = 3.59$



Clone	Year of Test	Replicate (tree)										Range
		1	2	3	4	5	6	7	8	9	10	
348	78						47	42				42-47
(491)	82						83	37				37-83
	84						60	37			43	37-60
	86						52	38			54	38-54
350	78		46			44						44-46
(500)	82		60									60
	84		41			31						31-41
	86		38			36						36-38
351	78	43		31	58	27	35	25	38			27-58
	82	52		33	31	44	34	31	50	37		31-52
	84	48		34	35	36	31	27	47	37	33	27-48
	86	44		24	26	34	28	40	38	46	30	24-46
352	78	41		32	41	29	37	39	34			29-41
	82	47		62	59	30	30	58		45		30-62
	84	32		40	54	36	41	37	38	38	39	32-54
	86	38		44	40	42	30	40	42	46	48	30-48
354	78	46	34		41	28						28-46
	82	57			42	34	30			40		30-57
	84	44	40		47	30		34	33	58	36	30-58
	86	44	28		48	24		32	34	64	50	28-64
356	78	43	38	57	50	45	40	40	50	44		38-57
	82	51	60	44	53	43	32	39				32-60
	84	62	39	40	52	44	34	45	49	42	54	34-62
	86	25	34	38	42	42	45	36	46	44	52	25-54
358	78	32	38	41	45	37	42	40	42	37		32-45
	82	50	45	42	39	40	39	42	43		48	39-50
	84	36	32	35	35	39	45	42	41	36	36	32-45
	86	21	26	36	28	44	42	30	28	48	20	21-48





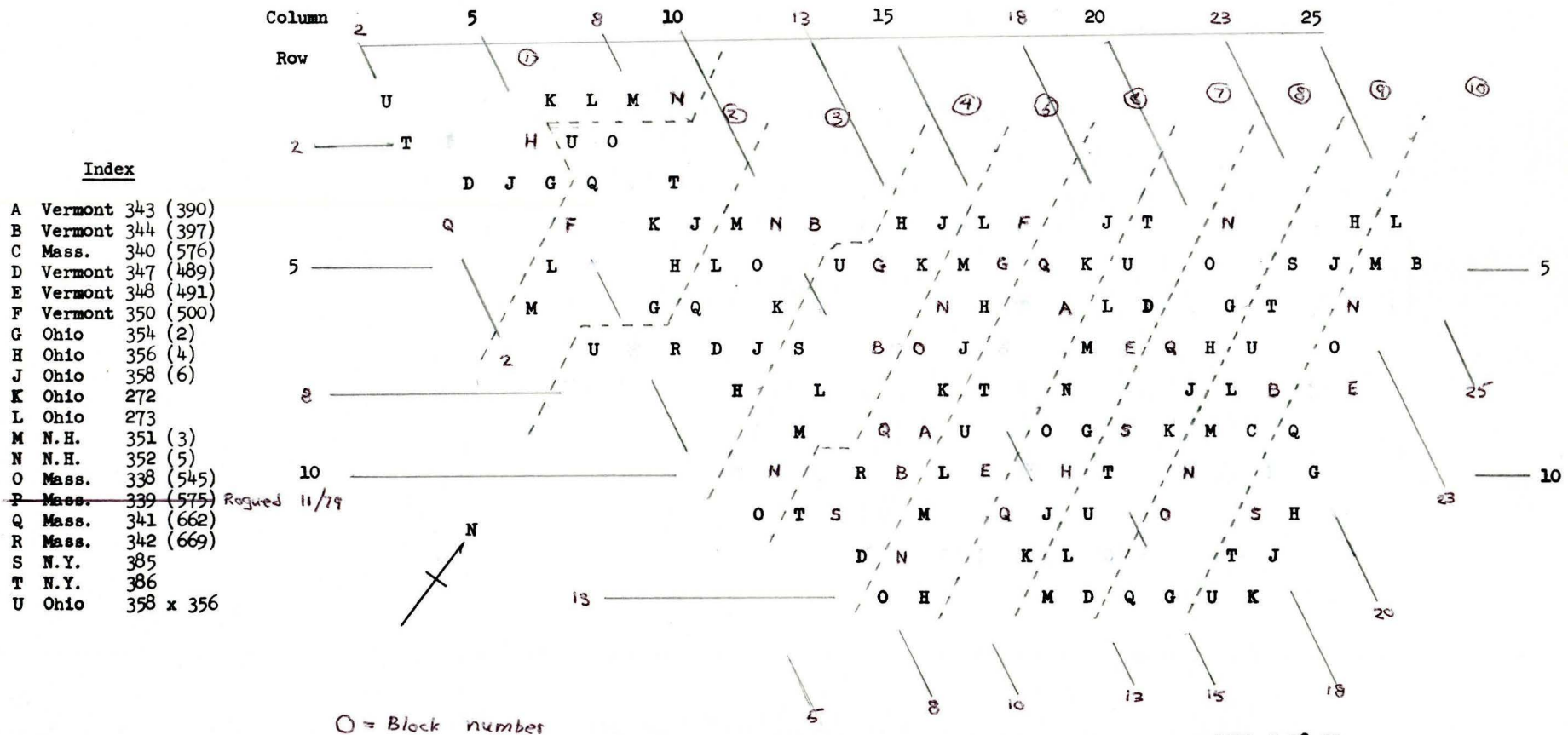


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-C6)



HEK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



by USFS Number

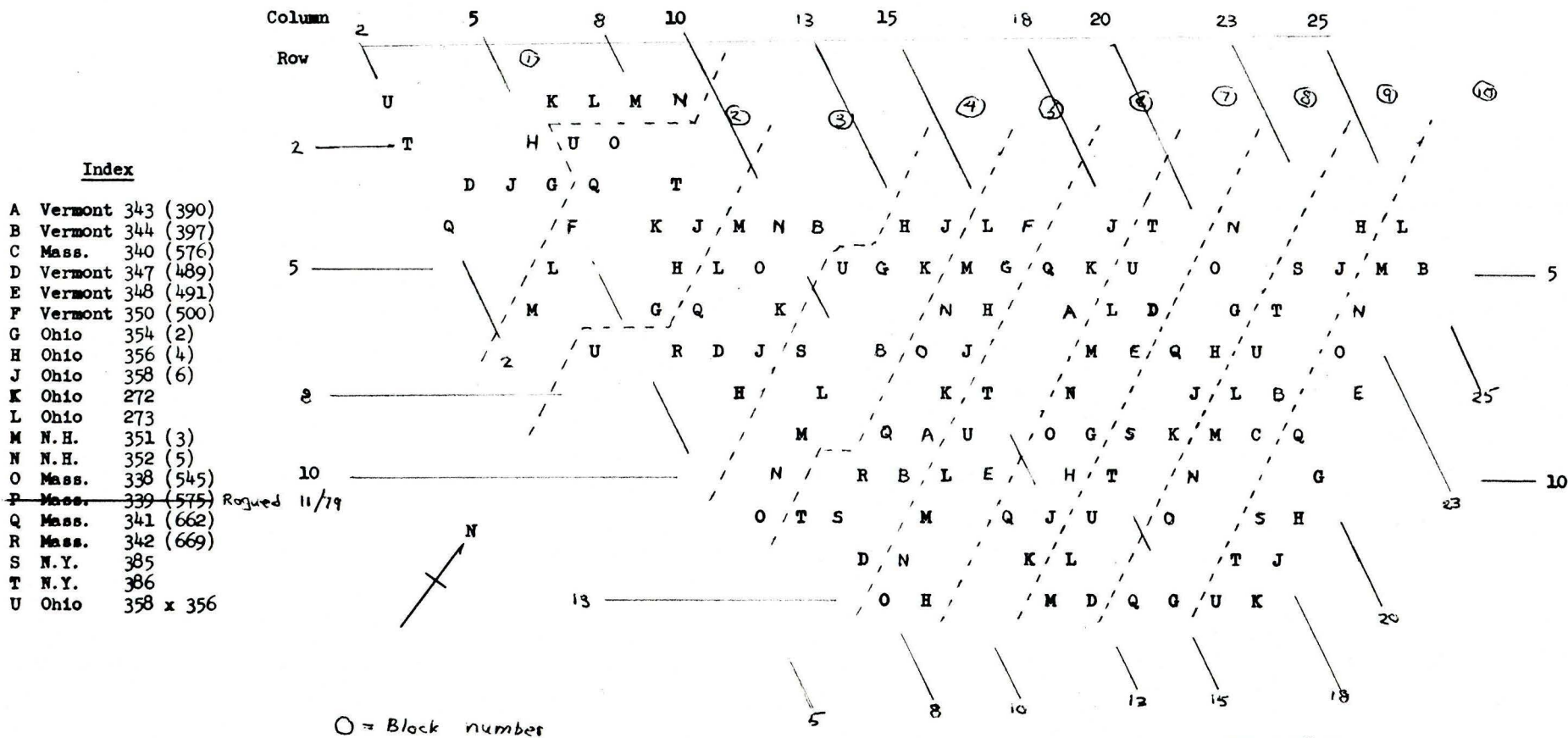


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
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Initiated in April, 1958  
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HEK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

6 March 1987

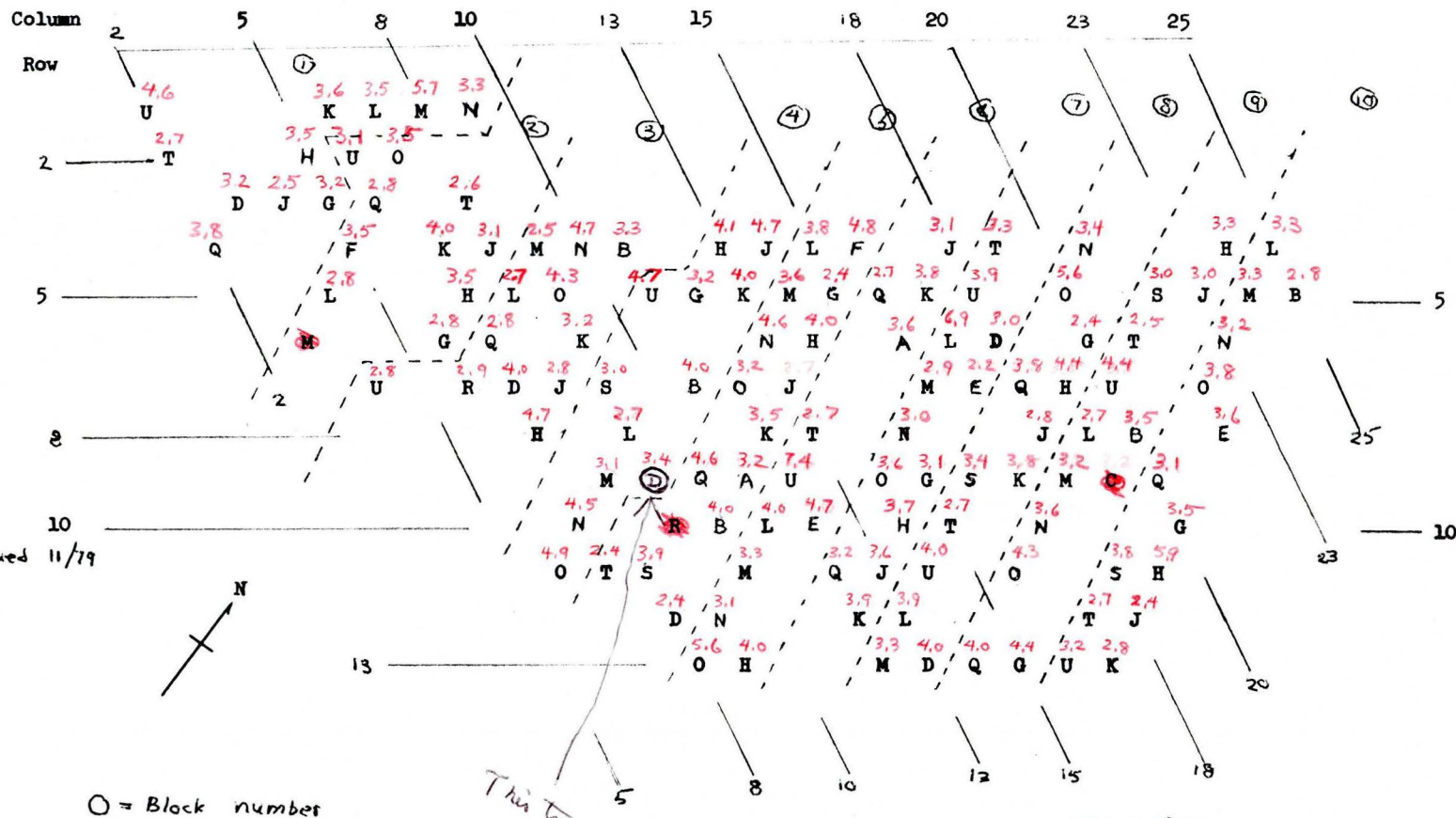
Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-C6)

Index

A	Vermont	343 (390)
B	Vermont	344 (397)
C	Mass.	340 (576)
D	Vermont	347 (489)
E	Vermont	348 (491)
F	Vermont	350 (500)
G	Ohio	354 (2)
H	Ohio	356 (4)
J	Ohio	358 (6)
K	Ohio	272
L	Ohio	273
M	N.H.	351 (3)
N	N.H.	352 (5)
O	Mass.	338 (545)
P	Mass.	339 (575) Rogued 11/79
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N.Y.	385
T	N.Y.	386
U	Ohio	358 x 356



○ = Block number

This tree is here

HBK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

40.

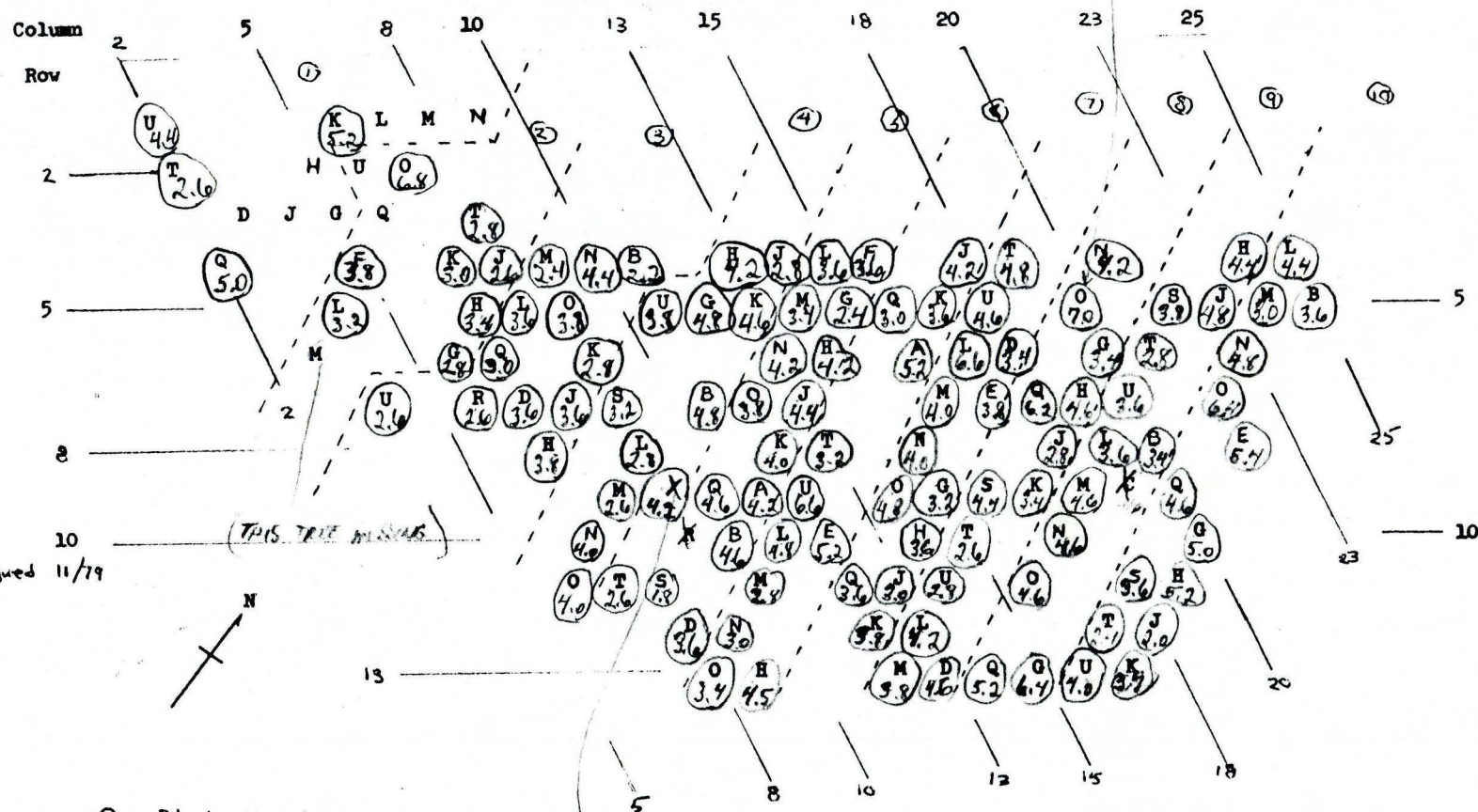
MAR. 5, 86  
70 SUGAR

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-C6)

(Tree 100% size)

Index		
A	Vermont	343 (390)
B	Vermont	344 (397)
C	Mass.	340 (576)
D	Vermont	347 (489)
E	Vermont	348 (491)
F	Vermont	350 (500)
G	Ohio	354 (2)
H	Ohio	356 (4)
J	Ohio	358 (6)
K	Ohio	272
L	Ohio	273
M	N. H.	351 (3)
N	N. H.	352 (5)
O	Mass.	338 (545)
P	Mass.	339 (575) <i>Removed 11/79</i>
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N. Y.	385
T	N. Y.	386
U	Ohio	358 x 356



O = Block numbers

(TREE LOCATED HERE)  
= D

HBK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



3 Mar 86

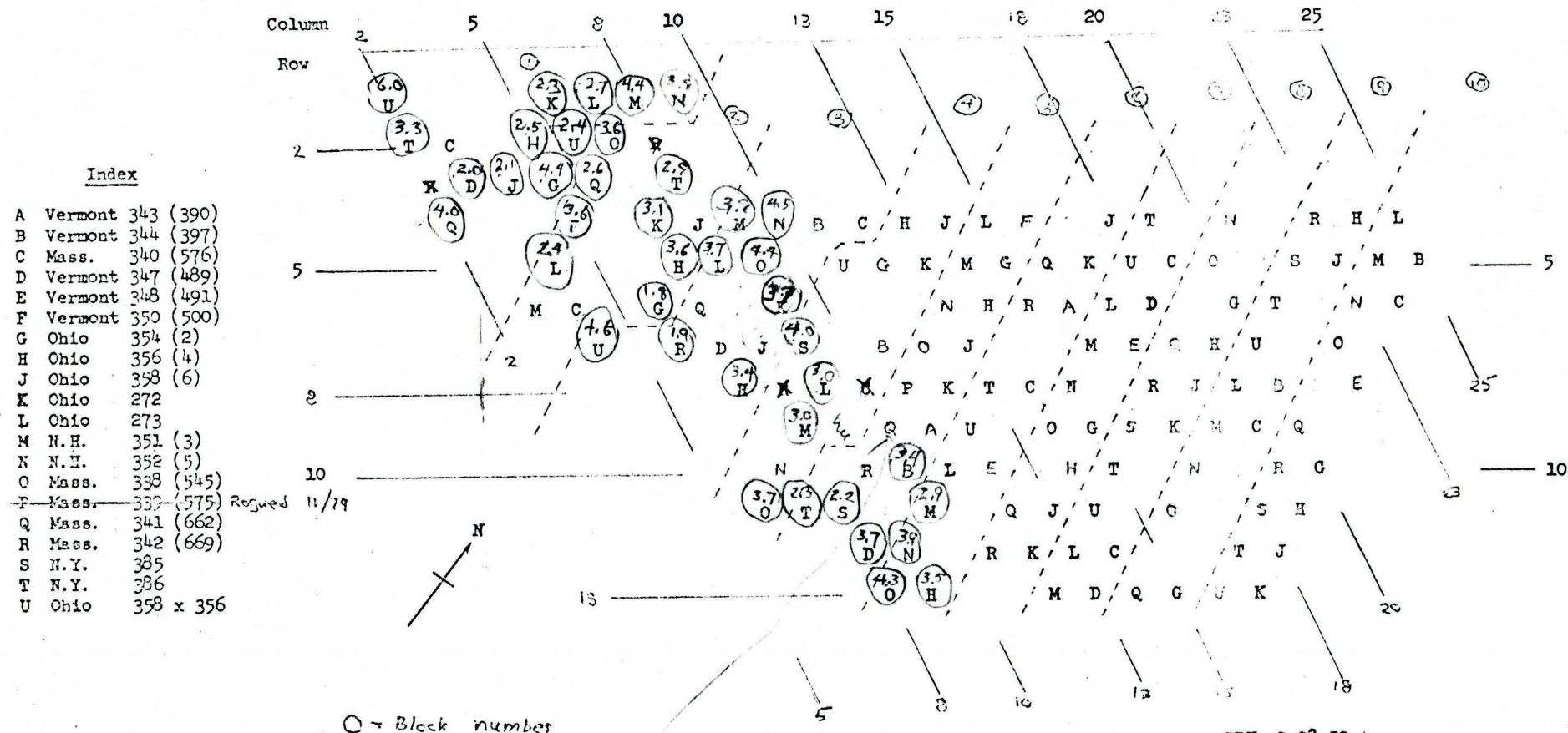
OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AG-1  
(Apple Creek State Hospital)

3 March 86

Sugar 90

Initiated in April, 1958  
Spacing: 30 x 30' triangular



EX 9-28-59  
Rev. 12-3-62  
Corr. 3-19-64



5 Mar 86 (a few 3 Mar 86)





3 Mar 86

[illegible]



## AC-1



39.

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

14 Mar 84

14 Mar 84

Sugar 90 x 10

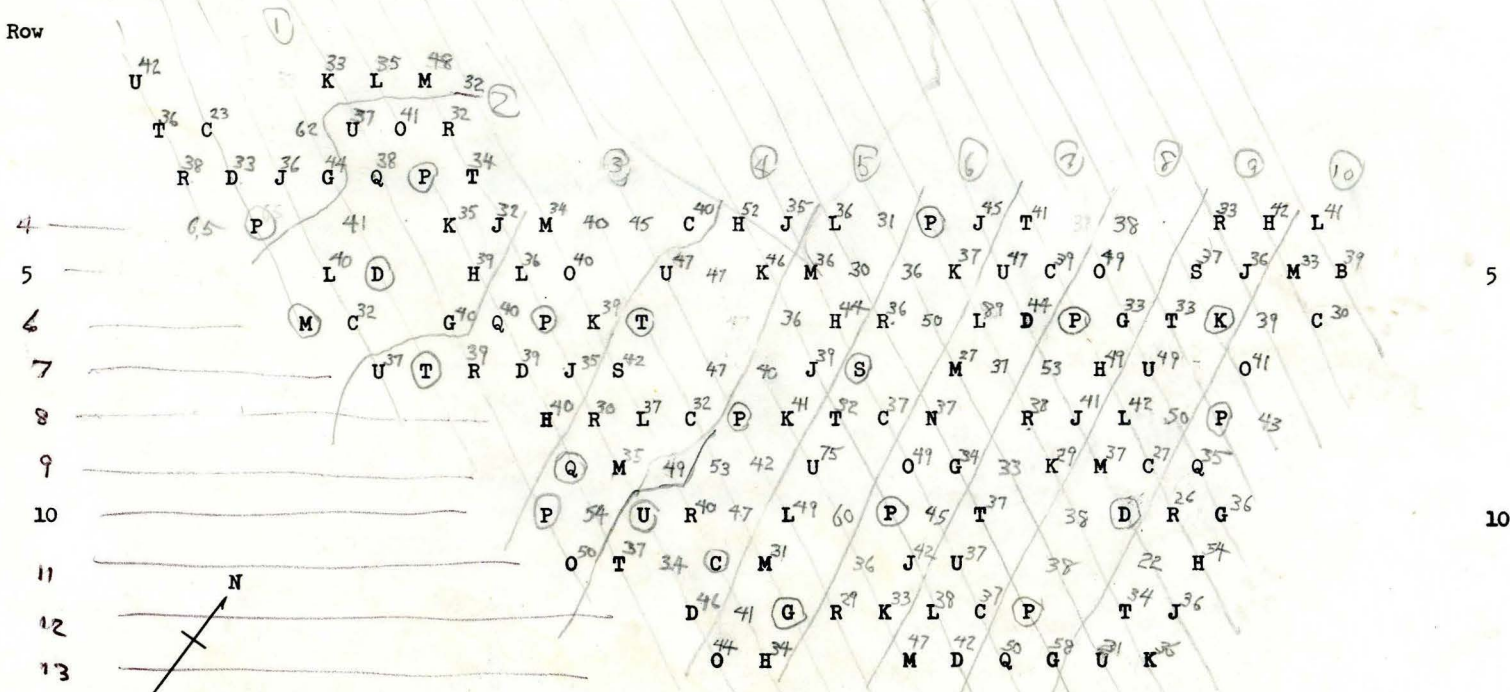
Initiated in April, 1958  
Spacing: 30 x 30' triangular

## Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356

Column 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Row



O = missing



COMBINED WEIGHTED CLONE MEANS  
1964 and 1977 Mid-Season Sap Tests \*

COMBINED WEIGHTED CLONE MEANS  
1964 and 1977 Mid-Season Sap Tests \*

[illegible]



# AC-1 Sugar Maple Test - Sugar Percent

4 Feb 82

Kristel  
Hatch 432

Jr 091.2

200274

<u>Variables</u>	<u>No.</u>
Clone	19
Date	4
Replicate	10

Measurements are of sap sugar %  $\times 10$  (single observation)

## Needed:

- ① Least squares average sugar % for each of the 19 clones (std dev's?)
- ② Components of variance (nested analysis)
- ③ Test of slope (trend) in date
- ④ Ranking of the 19 clones.

① LSA 2 main factors + 10  
CLONES + DATE.

② Homoscedastic variability in R.F.P.S.  
homoscedastic in clones etc.

③ as above.



Clone	Date of Test	Replicate (tree)									
		1	2	3	4	5	6	7	8	9	10
272	64			25		23		26	34	24	50
	77							30	30		30
	78	40	51	40	41	32	41	42	42		
	82	45	39	42	35	29	45	35	41		
273	64	35	45		42		45			42	33
	77							30	38	27	23
	78	30	40	37	28	43	60	34	44	33	
	82	35	35	39	27	45	59	35	37		
338 (545)	64			56	54		26	47	68		56
	77							45	49	40	32
	78		51	49	46	44	56	52	54		
	82		63	58	61	29	52	58		45	
340 (526)	64					50	29	26		49	32
	77							25	38	17	22
	78	22	27	29	29		38	33	53		
	82		35	38	30		39		57		
341 (662)	64		41							26	
	77							34	38	34	34
	78	67	33	37		52	30	49	47		
	82	67	30	28		41	31	35	52	37	
342 (669)	64		28	27	25	41	41	43	23	30	34
	77							28	35	25	36
	78	38	41	31	31	34	32	36	33	34	
	82	37	35	27	28	35	28	30	35		
343 (390)	64										
	77							60	29		
	78					41	75	75			
	82					41	63				



Kriebel  
Hatch 432  
24 Feb 82

AC-1 SUGAR MAPLE TEST - SUGAR PERCENT X 10

page 2

Clone	Date of Test	Replicate (tree)										R
		1	2	3	4	5	6	7	8	9	10	
344	64											
344	77							28	42	31	22	1.4
	78			50	49	60						1.1
	82			36	42	80						4.4
				43.0	45.5	70.0						
347	64	43				60			46			
(489)	77							32	36		34	
	78	39		35	32	40		37	52			
	82	31		32	50	40		29	52			
348	64											
(491)	77							33	37			
	78						47	42				
	82						83	37				
350	64											
350	77		41					33	40			
	78		46			44						
	82		60									
351	64	33		31	46	44	43	14	52	52	46	
	77							20	31	22	28	
	78	43		31	58	27	35	25	38			
	82	52		33	31	44	34	31	50	37		
352	64	33										
	77							32	28	40	31	
	78	41		32	41	29	37	39	34			
	82	47		62	59	30		58		45		
14 354	64	32					49			30	41	
	77									39	41	
	78	46	34		41	28						
	82	57			42	34	30			40		







MIXED MODEL LEAST-SQUARES AND MAXIMUM LIKELIHOOD COMPUTER PROGRAM

WALTER R. HARVEY PHONE (614)-422-5763

DAIRY SCIENCE DEPT., THE OHIO STATE UNIV., COLUMBUS OHIO 43210

1982

P. 1

See

1986

analyses

(1978, -82, -84, 86)

## LISTING OF PARAMETER CARDS FOR PROBLEM NO. 91

IJOB	NAB	NCD	ICN1	NLRH	NRHM	NMEA	NME	NNEA	NNE	N2F	NPR	NLC	NCPR	IRAN	MPOP	LIOP	IN	MTY	MAN	NRUN	NRN
91	0	1	0	22	1	0	2	0	0	0	0	0	0	0	0	10	5	1	1	1	1

FOR I= 1 MEN(1) LIT(1) NCL(1) MPOL LME(1) IBEG(1)  
 1 CLONE 19 0 3 1

IDEN(J) WHERE J=K2 BY STEPS OF ONE AS LONG AS J IS LESS THAN K2+NCL(1)+1

272	273	338	340	341	342	343	344	347	348	350	351	352	354	356	358	385	386	733
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

FOR I= 2 MEN(1) LIT(1) NCL(1) MPOL LME(1) IBEG(1)  
 2 DATE 4 0 2 5

IDEN(J) WHERE J=K2 BY STEPS OF ONE AS LONG AS J IS LESS THAN K2+NCL(1)+1

64	77	78	82
----	----	----	----

FOR I= 1 NEGY(1) LNY(1) LHY(1) KBEG(1) NDECY(1) YM(1) LITY(1)  
 0 0 4 9 1 .00000 %SUGAR



-.34907120E-02    .13557335E-02    -.22789631E-02    .13205340E-02    .39678286E-01    -.12930720E-02  
 -.72205426E-04    .93123740E-02    -.44571292E-02    -.3680482E-02    .10938489E-01    -.3203087E-02

# LISTING OF DIAGONAL INVERSE ELEMENTS

.39057427E-01    .36912882E-01    .41064712E-01    .46379727E-01    .46447899E-01    .33804332E-01  
 .94159136E-01    .53437419E-01    .15348161E+00    .18378621E+00    .36008113E-01    .53648092E-01  
 .36986812E-01    .32818272E-01    .85690985E-01    .39678286E-01    .93123740E-02    .10938489E-01

THE CORRELATION MATRIX IS    .0000001097280908    .10972809081624120-06

## CONSTANTS, LEAST-SQUARES MEANS AND STANDARD ERRORS FOR PROBLEM NO. 91

DEPENDENT VARIABLE	NO. OBS.	EFFECTIVE NO.	CONSTANT ESTIMATE	STANDARD ERROR OF CONSTANT	LEAST-SQUARES MEAN	STANDARD ERROR OF LS MEAN
272	376	261.3	4.03822427	.05951687	4.03822427	.05951687
273	25	24.8	-.50741418	.19160526	3.53081009	.19328191
338	27	26.8	-.34749513	.18485625	3.69072914	.18579406
340	24	23.9	.84959050	.19497528	4.88781476	.19673033
341	21	20.9	-.66710814	.20720931	3.37111612	.21022142
342	21	20.8	-.09093643	.20736154	3.94728784	.21120281
343	30	29.8	-.86719987	.17690143	3.17102439	.17638943
344	6	6.0	1.16943740	.37694097	5.20766166	.39401566
347	10	9.9	.47918559	.29524082	4.51740985	.30610290
348	18	17.9	-.11858403	.22241696	3.91964024	.22742400
350	6	6.0	.66943740	.37694097	4.70766166	.39401566
351	5	5.0	.55225966	.41247880	4.59048392	.43177791
352	28	27.8	-.44957606	.18257670	3.58864820	.18249877
354	18	17.8	-.08383933	.22285496	3.95438494	.22823324
356	15	14.9	-.25267338	.24256335	3.78555088	.24895875
358	27	26.8	.28707764	.18504128	4.32530191	.18573371
385	31	30.7	-.40840871	.17430226	3.62981555	.17356872
386	11	10.9	-.39546310	.28165193	3.64276117	.29120723
733	25	24.9	-.36761187	.19165565	3.67061240	.19287592
64	28	27.7	.54932206	.18276100	4.58754633	.18289005
77	84	68.3	.17298499	.09284860	4.21120925	.11643936
78	65	63.6	-.65514356	.10062916	3.38308071	.12066091
82	116	103.4	.17570893	.08146718	4.21393320	.09461438
	111	99.5	.30644964	.08256394	4.34467391	.09644049



# LEAST-SQUARES ANALYSIS OF VARIANCE

%SUGAR

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F	PROB
TOTAL	376	6416.240000			
TOTAL REDUCTION	22	6088.527053	276.751230	298.950	.0000
MU-YM	1	4261.779852	4261.779852	4603.633	.0000
CLONE	18	94.926564	5.273698	5.697	.0000
DATE	3	41.289197	13.763066	14.867	.0000
REMAINDER	354	327.712947	.925743		.0000
<p> MEAN = 3.98032    ERROR STANDARD DEVIATION = .96216    CV = 24.17    R SQUARED = .286    R = .535 </p>					



## \*DATA

READ CLONE 1-3 TREE 4 DATE 5-6 %SUGAR 9-12 1 ;

ACCORDING TO THE ABOVE INPUT STATEMENT THE DATA ARE DEFINED AS:

VARIABLE	NUMBER	CARD	BEGIN	END	DECIMALS
CLONE	1	1	1	3	0
TREE	2	1	4	4	0
DATE	3	1	5	6	0
%SUGAR	4	1	9	12	1

1 CARDS PER OBSERVATION WILL BE READ FROM FORTRAN FILE # 5

4 VARIABLES WERE DEFINED.  
376 OBSERVATIONS ARE IN DATA SET.

## \*TITL

KRIEBEL %SUGAR RUN I JOB 91.2

## \*TRAN



KRIEBEL SUGAR MAPLE TEST

JOB 91.2

TRANSFORMATION PROCEDURE. INPUT RECORDS ARE:

V05=CLONE\_YR

ADDED VARIABLE # 5 IS NAMED CLONE\_YR

X05=MOD 0212.

X05=MISS0510.

MISS05 IS NOT A LEGAL TRANSFORMATION

X05=NUMISS057.

X05=MINUSC053.

X01=CMUL 0110.

X05=SUM 0105

X01=CDIV 0110.

\$

\*LIST

;



KRIEBEL SUGAR MAPLE TEST JOB 91.2

ONE WAY ANALYSIS OF VARIANCE FOR VARIABLE 4 = %SUGAR

TREATMENTS ARE CLONE (arithmetic, presumably)

TREATMENT MEAN N VARIANCE STD. DEV.

272	3.6480	25	.630941	.794318
273	3.7815	27	.756956	.870032
338	4.9625	24	1.061577	1.030329
340	3.4190	21	1.155617	1.074996
341	4.0143	21	1.351285	1.162448
342	3.2700	30	.273896	.523351
343	5.1500	6	2.967004	1.722500
344	4.4000	10	2.882226	1.697712
347	4.0000	18	.772946	.879173
348	4.6500	6	3.430994	1.852294
350	4.4600	5	.987999	.993981
351	3.6821	26	1.188924	1.090378
352	3.9889	16	1.125757	1.061017
354	3.8933	15	.626380	.791442
356	4.4111	27	.650254	.806384
358	3.7355	31	.743709	.862386
385	3.5636	11	1.190540	1.091119
386	3.7440	25	1.140895	1.068127
733	4.7107	26	1.412846	1.188632

OVERALL 3.9803 376 1.224805 1.106709

ANALYSIS OF VARIANCE TABLE

SOURCE	DF	SS	MS	F	PROB
AMONG CLONE	18	.903027E+02	5.016819	4.854	.00
WITHIN CLONE	357	.368999E+03	1.033611		
TOTAL	375	.459302E+03			

1.224805 = 1.034611 + .2033

an approximation of

Components (see protocols)

$$\hat{\sigma}^2_{\text{clone}} = .17\%$$

$$\hat{\sigma}^2_{\text{date}} = .7\%$$

$$\hat{\sigma}^2_{\text{clone} \times \text{date}} = .15\%$$

$$\hat{\sigma}^2_{\text{tree}} = .62\%$$

(all interactions including tree x rep)

(Bishop, March 1982)

clone to clone variation



KRIEBEL SUGAR MAPLE TEST JOB 91.2  
DUNCANS NEW MULTIPLE RANGE TEST -- .05 LEVEL

19 TREATMENTS

ERROR DEGREES OF FREEDOM= 357  
ERROR MEAN SQUARE= 1.033611

LSD(.05) = 1.149095

← No. of measurements between 1981 and 1982

TREATMENT	N	MEAN		%	Ortet mean	Ortet type F=Forest, R=Roadside	including 1981
VT 343 (390)	6	5.150000	A	5.2	2.1	F	5.2
MA 338 (545)	24	4.902500	A	5.0	4.7	R	4.8
OH 733	28	4.710714	A	4.7	3.6 x 3.4	R	4.4
VT 348 (491)	6	4.650001	AB	4.6	3.2	F	4.8
VT 350 (500)	5	4.460000	ABC	4.5	3.4	F	4.4
OH 356	27	4.411111	ABC	4.4	3.4	R	4.6
VT 344 (397)	10	4.400000	ABC	4.4	2.5	F	4.7
MA 341 (662)	21	4.014286	BC	4.0	4.4	R	4.3
VT 347 (489)	18	3.999999	BC	4.0	3.9	F	4.0
NH 352	18	3.988888	BC	4.0	8.0	F	4.1
OH 354	15	3.893333	BCD	3.9	3.2	R	3.8
OH 273	27	3.781481	BCD	3.8	2.2	F	4.1
NY 386	25	3.744000	BCD	3.7	4.8	R	3.9
OH 358	31	3.735483	BCD	3.7	3.6	R	3.9
NH 351	28	3.682143	BCD	3.7	6.0	R	3.7
OH 272	25	3.647999	BCD	3.6	2.5	F	3.9
NY 385	11	3.563637	BCD	3.6	4.0	R	3.4
MA 340 (576)	21	3.419048	CD	3.4	4.0	R	3.3
MA 342 (669)	30	3.270000	D	3.3	4.2	R	3.1

MEANS FOLLOWED BY THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

NOTE: THE LSD ABOVE IS FOR THE NUMBER OF REPLICATIONS IN THE FIRST M

\*1WAY

%SUGAR = DATE ;

Clone	Ortet	
358	3.7	3.6
356	4.4	3.4
358 x 356	4.7	

 = Heavy flower crop, 1978  
 = Medium " " "  
 = Light " " "



KRIEBEL SUGAR MAPLE TEST JOB 91.2

ONE WAY ANALYSIS OF VARIANCE FOR VARIABLE 4 =%SUGAR

TREATMENTS ARE DATE

TREATMENT	MEAN	N	VARIANCE	STD.DEV.
-----------	------	---	----------	----------

64	4.0143	84	1.580266	1.257087
77	3.3185	65	.654968	.809301
78	4.0931	116	.811944	.901079
82	4.2243	111	1.419835	1.191568

OVERALL	3.9803	376	1.224805	1.106709
---------	--------	-----	----------	----------

ANALYSIS OF VARIANCE TABLE

SOURCE	DF	SS	MS	F	PRO
AMONG DATE	3	.366699E+02	12.223307	10.759	.0
WITHIN DATE	372	.422632E+03	1.136107		
TOTAL	375	.459302E+03			

date-to-date  
variation  
(year-to-year)



KRIEBEL SUGAR MAPLE TEST      JOB 91.2  
DUNCANS NEW MULTIPLE RANGE TEST--.05 LEVEL

4 TREATMENTS

ERROR DEGREES OF FREEDOM= 372  
ERROR MEAN SQUARE= 1.136107

LSD(.05) = .280239

TREATMENT	N	MEAN	
82	111	4.224327	A
78	116	4.093103	A
64	84	4.014287	A
77	65	3.318461	B

MEANS FOLLOWED BY THE SAME LETTER ARE NOT  
SIGNIFICANTLY DIFFERENT.

NOTE: THE LSD ABOVE IS FOR THE NUMBER OF REPLICATIONS IN THE FIRST MEAN

\*1WAY

%SUGAR = CLONE\_YR ;



KRIEBEL SUGAR MAPLE TEST JOB 91.2  
DUNCANS NEW MULTIPLE RANGE TEST--.05 LEVEL

2

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154 TREATMENTS

ERROR DEGREES OF FREEDOM= 222  
ERROR MEAN SQUARE= .754430

LSD(.05) = 2.405964  
(cramet)  
(Tree, average)

See computer  
printout  
for Treatment  
Code

clone  
actually tree within  
clone  
averaged over  
1, 2, 3 or 4 years  
p. 9 3442  
is clone 344,  
tree (rep) # 5,  
average of 1978  
and 1982 (8.00)  
reading A

TREATMENT	N	MEAN	
7332	1	7.400000	A
3442	2	7.000000	A
3433	2	6.900000	A
3408	2	6.700000	AB
3463	2	6.500000	ABC
7333	3	6.400001	ABC
3854	1	6.400000	ABCD
3434	1	6.000000	ABCDE
3379	2	5.700000	ABCDE
3385	3	5.700000	ABCDE
2733	3	5.466667	ABCDE
3380	3	5.433333	ABCDE
3381	3	5.366666	ABCDE
3499	2	5.300000	ABCDEF
3384	4	5.050000	ABCDEF
7329 7332	2	5.000000	ABCDEF
3521	2	5.000000	ABCDEF
3402	1	5.000000	ABCDEF
3405	3	4.933333	ABCDEF
3561	3	4.933333	ABCDEF
3559	2	4.900000	ABCDEF
3557	2	4.900000	ABCDEF
3858	3	4.800000	ABCDEF
7331	3	4.766667	ABCDEF
7336	4	4.725000	ABCDEF
3556	2	4.700000	ABCDEF
3520	2	4.700000	ABCDEF
3472	3	4.666667	ABCDEF
3475	4	4.650000	ABCDEF
3412	2	4.650000	ABCDEF
3566	3	4.599999	ABCDEF
3560	3	4.599999	ABCDEF
3415	3	4.566667	ABCDEF
3441	2	4.550000	ABCDEF
3511	3	4.500000	ABCDEF
3536	3	4.500000	ABCDEF
2719	2	4.500000	ABCDEF
3383	3	4.466666	ABCDEF
7335	4	4.450000	ABCDEF
2732	2	4.400001	ABCDEF
3860	2	4.400000	ABCDEF
7327 ?	1	4.400000	ABCDEF
3377	2	4.400000	ABCDEF
3502	1	4.400000	ABCDEF
3524	3	4.300000	BCDEF
2723	2	4.300000	BCDEF
3440	2	4.300000	BCDEF



3515	4	4.275000	BCDEFGH
3506	3	4.266667	BCDEFGH
3366	2	4.250000	BCDEFGH
3851	2	4.250000	BCDEFGH
2718	2	4.250000	BCDEFGH
3526	2	4.250000	BCDEFGH
3564	4	4.224999	BCDEFGH
3445	1	4.200000	BCDEFGH
7334	4	4.200000	CDEFGH
3580	3	4.166667	CDEFGH
3541	2	4.150000	CDEFGH
3471	2	4.100000	CDEFGH
3432	2	4.099999	CDEFGH
3537	2	4.099999	CDEFGH
3565	3	4.066667	CDEFGH
7328	3	4.066667	CDEFGH
3562	3	4.066667	CDEFGH
3518	3	4.033334	CDEFGH
3585	3	4.000000	CDEFGH
3861	1	4.000000	CDEFGH
3864	2	4.000000	CDEFGH
2717	2	4.000000	CDEFGH
2729	3	4.000000	CDEFGH
3505	1	4.000000	CDEFGH
2735	3	3.966667	DEFGH
3564	3	3.966667	DEFGH
3543	2	3.950000	DEFGH
3414	3	3.933333	DEFGH
3862	3	3.933333	DEFGH
3579	3	3.866667	DEFGH
3583	3	3.866667	DEFGH
3866	3	3.833333	DEFGH
3512	3	3.833333	DEFGH
3563	3	3.800001	DEFGH
2721	2	3.800000	DEFGH
2730	2	3.800000	DEFGH
3468	3	3.766667	DEFGH
3416	2	3.750000	DEFGH
3464	3	3.733334	DEFGH
3513	3	3.733334	DEFGH
3516	3	3.700000	DEFGH
3523	1	3.700000	DEFGH
3507	2	3.700000	DEFGH
3485	1	3.700000	DEFGH
2725	4	3.675000	DEFGH
3422	3	3.666667	DEFGH
3561	3	3.666667	DEFGH
3382	2	3.650000	DEFGH
3577	3	3.633333	DEFGH
3546	3	3.633333	DEFGH
7330	3	3.633333	DEFGH
2720	3	3.566667	DEFGH
3403	3	3.533333	DEFGH
3417	2	3.500000	DEFGH
3409	3	3.466667	DEFGH
3419	3	3.466667	DEFGH
3562	3	3.466667	DEFGH
3424	4	3.425000	DEFGH
3539	1	3.400000	DEFGH
2736	3	3.400000	DEFGH

(2)

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3467	1	3.400000	DEFGH
3407	1	3.400000	DEFGH
3423	3	3.366666	EFGH
3865	4	3.350000	EFGH
3400	2	3.350000	EFGH
3859	2	3.350000	EFGH
3470	2	3.350000	EFGH
2728	3	3.333333	EFGH
2724	4	3.325000	EFGH
3406	2	3.300000	EFGH
3504	1	3.300000	EFGH
2734	3	3.300000	EFGH
3578	3	3.266667	EFGH
3474	3	3.266666	EFGH
3410	2	3.250000	EFGH
3416	3	3.233334	EFGH
2731	3	3.233334	EFGH
3510	3	3.166667	EFGH
3425	4	3.150000	EFGH
3857	3	3.133333	EFGH
3525	2	3.100000	EFGH
3856	2	3.100000	EFGH
3517	1	3.100000	EFGH
3542	2	3.100000	EFGH
3399	2	3.100000	EFGH
3446	1	3.100000	EFGH
3852	2	3.100000	FGH
3847	2	3.050000	FGH
3413	2	3.050000	FGH
3586	3	3.033333	FGH
3426	3	2.966667	FGH
3522	2	2.950000	FGH
3401	2	2.950000	FGH
3855	2	2.900000	FGH
3435	1	2.900000	FGH
3420	3	2.833333	FGH
3421	3	2.800000	FGH
3444	1	2.800000	FGH
2727	2	2.800000	GH
2722	3	2.800000	GH
3863	2	2.800000	GH
3404	3	2.800000	GH
3397	2	2.700000	GH
2726	1	2.400000	GH
3514	4	2.250000	H
3437	1	2.200000	H
3398	1	2.200000	H

MEANS FOLLOWED BY THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

NOTE: THE LSD ABOVE IS FOR THE NUMBER OF REPLICATIONS IN THE FIRST MEAN.



\*DATA

READ CLONE 1-3 TREE 4 DATE 5-6 %SUGAR 9-12 1 ;

ACCORDING TO THE ABOVE INPUT STATEMENT THE DATA ARE DEFINED AS:

VARIABLE	NUMBER	CARD	BEGIN	END	DECIMALS
CLONE	1	1	1	3	0
TREE	2	1	4	4	0
DATE	3	1	5	6	0
%SUGAR	4	1	9	12	1

1 CARDS PER OBSERVATION WILL BE READ FROM FORTRAN FILE # 5

4 VARIABLES WERE DEFINED.

376 OBSERVATIONS ARE IN DATA SET.

\*TITL

KRIEBEL SUGAR MAPLE TEST JOB 91.2

\*TRAN



KRIEBEL %SUGAR RUN I JOB 91.2

TRANSFORMATION PROCEDURE. INPUT RECORDS ARE:

V05=DUMMY

ADDED VARIABLE # 5 IS NAMED DUMMY

X05=XDIV 0505

X02=XMUL 0205

X02=NOMISS0210.

\$

\*LIST

CLONE - %SUGAR ;



3 P.3

KRIEBEL %SUGAR RUN I JOB 91.2

LINEAR REGRESSION ANALYSIS FOR DEPENDENT VARIABLE %SUGAR  
AND INDEPENDENT VARIABLES-

DATE

VARIABLE	MEAN	N	VARIANCE	STD.DEV.
DATE	75.88033	376	44.30800	6.656
%SUGAR	3.98032	376	1.22480	1.100

MATRIX OF SIMPLE CORRELATION COEFFICIENTS

	DATE	%SUGAR
DATE	1.00000	.04034
%SUGAR	.04034	1.00000

ANALYSIS OF VARIANCE TABLE FOR REGRESSION

SOURCE	DF	SS	MS	F	PROB F
REGRESSION	1	.74760306E+00	.747603	.610	.5585
DEVIATION	374	.45855414E+03	1.226081		
TOTAL	375	.45930176E+03			

R-SQUARED= .0016

MULTIPLE R= .0403

VARIANCE OF AN ESTIMATE= 1.226081

STD. DEV. OF AN ESTIMATE= 1.107285

VARIABLE	COEFFICIENT	STD.ERROR	T VALUE	SIG.LEVEL	STD.B	PAR
INTERCEPT	3.471327					
DATE	.670778E-02	.85902E-02	.7809	.5585	.0403	



AC-11

	3/3/64		3/13/64		3/8/77		3/7/78		(1)	(2)	(3)	(4)
	n	$\bar{x}$	n	$\bar{x}$	n	$\bar{x}$	n	$\bar{x}$	$\sum$ of n	$\sum$ of $\bar{x}$	Weighted Clone Mean (3)÷(1)	Same as (3) but in- cluding 2/23/82
272	1	3.80	5	3.12	3	3.00	8	4.11	17	61.28	3.60	3.75
273	4	3.85	6	4.03	4	3.00	9	3.88	23	86.50	3.76	3.80
338			6	5.12	4	4.20	7	5.03	17	82.73	4.87	4.97
339			9	3.04	4	3.20	8	2.95	21	63.76	3.04	
340	1	5.00	5	3.72	4	2.60	7	3.30	17	57.10	3.36	3.50
341			2	3.35	4	3.50	7	4.50	13	52.20	4.02	4.01
342	2	2.65	9	3.24	4	3.10	9	3.44	24	77.82	3.24	3.23
343							2	5.80				5.50
344					4	3.10	4	5.00	8	32.40	4.05	4.38
347	1	3.60	3	4.97	3	3.40	6	3.92	13	52.23	4.02	3.98
348					3	3.50	2	4.45	5	19.40	3.88	4.49
350					2	4.00	2	4.50	4	17.00	4.25	4.60
351	1	4.20	10	3.94	4	2.52	7	3.67	22	79.37	3.60	3.69
352					4	3.30	7	3.61	11	38.47	3.50	4.03
354			4	3.80	2	4.00	4	3.73	10	38.12	3.81	3.89
356	2	4.60	7	4.41	4	3.82	9	4.52	22	96.03	4.37	4.42
358	3	3.30	9	3.30	3	2.90	9	3.93	24	83.67	3.49	3.70
385	1	3.30	1	3.30	4	3.70	4	3.65	10	36.00	3.60	3.57
386	2	3.65	6	3.93	4	2.92	8	4.11	20	75.44	3.77	3.73
733	1	3.10	9	5.41	3	3.63	8	4.39	21	97.80	4.66	4.66
									302	1147.32	3.80	
								all 20 clones			3.93	
							omitting 343				3.84	
							omitting 339				3.98	4.10
							# clones >4%				7	9



5 Mar 86 (a few 3 Mar 86)

NOTE: Where there was not a 5 Mar 86 measurement and there was a 3 Mar 86 measurement, the 3 Mar 86 measurement was inserted; where a tree was measured on both dates the 5 Mar 86 measurement was used, because more trees were measured on that date.



75-1



3/14

3/15

1984

(x 10)

[illegible]







3/7/78 (x10)

Acc. No.	Coll. No.	1	2	3	4	5	6	7	8	9	$\Sigma$	$\bar{x}$
272	545	40	51	40	41	32	41	42	42	—	329	4.11
273	545	30	40	37	28	43	60	34	44	33	349	3.88
338	545	—	51	49	46	44	56	52	54	—	352	5.03
339	575	25	28	27	24	22	21	42	47	—	236	2.95
340	576	22	27	29	29	—	38	33	53	—	231	3.30
341	662	67	33	37	—	52	30	49	47	—	315	4.50
342	669	38	41	31	31	34	32	36	33	34	310	3.44
343	390	—	—	—	—	41	75	—	—	—	116	5.80
344	397	—	—	50	49	60	—	—	—	41	200	5.00
347	489	39	—	35	32	40	—	37	52	—	235	3.92
348	491	—	—	—	—	—	47	42	—	—	89	4.45
350	500	—	46	—	—	44	—	—	—	—	90	4.50
351	—	43	—	31	58	27	35	25	38	—	257	3.67
352	—	41	—	32	41	29	37	39	34	—	253	3.61
354	—	46	34	—	41	28	—	—	—	—	149	3.73
356	—	43	38	57	50	45	40	40	50	44	407	4.52
358	—	32	38	41	45	37	42	40	42	37	354	3.93
385	—	—	—	—	41	32	—	—	32	41	146	3.65
386	—	42	38	46	—	54	33	50	31	35	329	4.11
733	(358 x 356)	38	50	39	48	—	57	36	41	42	351	4.39
											$\bar{x} =$	<del>4.12</del> 4.12
											3 clones $\bar{x}$	> 5%
											+ 7 clones $\bar{x}$	> 4%
											+ 10 clones $\bar{x}$	3% or better



AC-1

Tests. Made 3/8/77

Accession No.  OARDC	Block				$\Sigma Y$	$\bar{Y}$	$\Sigma(Y^2)$	Rank	Previous Rank (2 1964 tests)	Ortet Mean
	7	8	9	10						
(390) vt. 343	(60)	(29)			89	4.45	4441	1		2.07
(397) vt. 344	28	42	31	22	123	3.10	3993	13		2.47
(500) vt 350	(33)	40			73	<del>3.65</del> 4.00	2689	6		3.41
N.H. 351	20	31	22	28	101	2.52	2629	20	5	
N.H. 352	32	28	40	31	131	3.30	4369	11		
(4) o. 356	40	38	35	40	153	3.82	5869	4	2	3.18
(491) vt. 348	33	37		(38)	108	<del>3.50</del> 3.64	3902	8		3.17
(576) Mass. 348 (463) vt. 348	25	38	17	22	102	2.60	2842	19	12	3.97
(669) Mass. 342	28	35	25	36	124	3.10	3930	13	11	4.25
(489) vt. 347	32	36		34	102	3.40	3476	10	4	3.86
(6) o. 358	28	(35)	33	26	122	<del>3.05</del> 2.90	3774	15	8	3.63
(2) o. 354			39	41	80	4.00	3202	3	14	3.43
<sup>323</sup> Mass. 338 (545)	45	49	40	32	166	4.20	7050	2	3	4.69
<sup>575</sup> Mass. 339 (327)	40	39	25	23	127	3.20	4275	12	10	3.93
(662) Mass. 341	34	38	34	34	140	3.50	4912	9	15	4.40
N.Y. 386	30	30	27	30	117	2.92	3429	18	7	4.75(?)
358 v 356 733	34	34	41	-	109	3.63	3993	7	1	
o. 273	30	38	27	23	118	3.00	3602	16	6	
o. 272	30	30	-	30	90	3.00	2700	16	9	
N.Y. 385	64	24	29	30	147	3.70	6413	5	13	4.00(?)
					$\bar{X}$	3.39				
$\Sigma Y$	666	671	465	520						
$\bar{Y}$	3.50	3.53	3.10	3.06						
$\Sigma(Y^2)$	25536	24295	15155	16504						



Note: Clone 342 (H 669) from Mass., (R)  
has oval-globular crown, consistent for  
all ramets. Examined by Shade Tree  
Evaluation Committee in 1976.



Table 5. Observed flowering patterns in the Apple Creek seed orchard.<sup>a</sup>

Clone or family	1966		1967		1976		1978		1984	
	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂
272	L	L	H	L	H		H		H	L
273	H	H	H	M	H	L	H	M	H	
351										M
352									L	M
354		L								M
356										M
358	M	M	M	M			L	H	M	M
385									L	H
386		L		H		H	M	H	H	H
390									H	H
397					L				H	
489		L		L		H		M	M	H
491									M	H
500										M
545				L				L	L	
575				L				M	b	b
576									H	M
662									L	H
669										L
733 <sup>c</sup>								L	M	H
No. trees flowering	8		24		18		26		72	
Percent of:										
(1) clones flowering	30		40		30		40		100	
(2) trees flowering	4.6		12.6		10.4		18.4		51.1	

<sup>a</sup> H, M, and L are high, medium and low average levels of flower production

<sup>b</sup> Clone rogued out in 1979

<sup>c</sup> Seedling family



6 May 84

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

6 May 1984

newly-flowering  
clones

A M  
B N  
C O  
D P  
E Q  
F R  
G S  
H T

clones  
never  
flowered

Initiated in April, 1958  
Spacing: 30 x 30' triangular

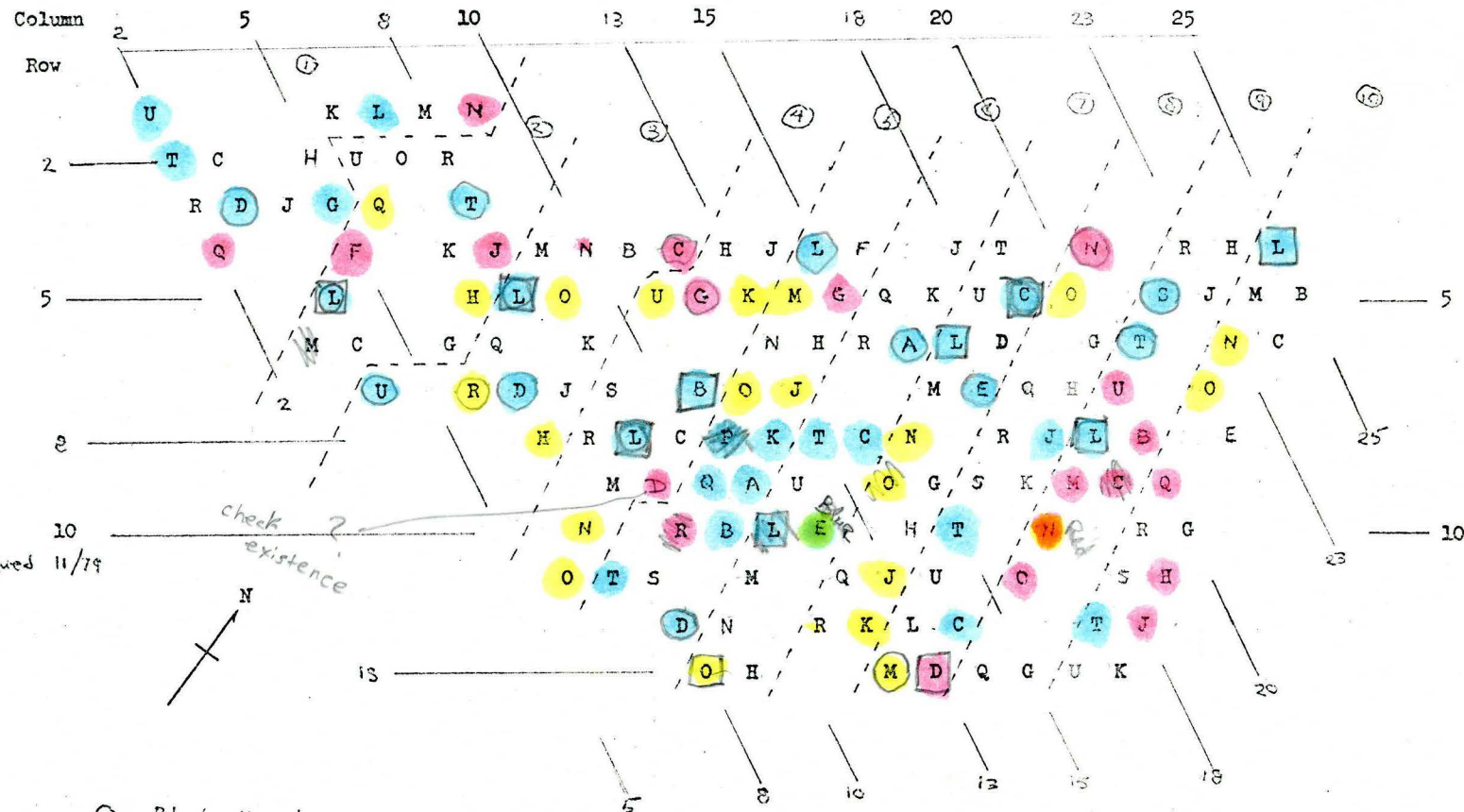
Remove Clone C on the  
basis of performance

Orbit %	Rank (Propeny)	
	1 = A	Heavy ♂
4.7	2 = O	Light ♀
	3 = U	Heavy ♂
4.6	4 = E	Heavy ♂
(Forest) 4.5	5 = F	Med
	6 = H	Med
(Forest) 2.5	7 = B	Heavy ♀
4.4	8 = Q	Heavy

Clones  
that  
have  
flowered

## Index

✓	A	Vermont	343 (390)
✓	B	Vermont	344 (397)
✓	C	Mass.	340 (576)
✓	D	Vermont	347 (489)
✓	E	Vermont	348 (491)
✓	F	Vermont	350 (500)
✓	G	Ohio	354 (2)
✓	H	Ohio	356 (4)
✓	J	Ohio	358 (6)
✓	K	Ohio	272
✓	L	Ohio	273
✓	M	N.H.	351 (3)
✓	N	N.H.	352 (5)
✓	O	Mass.	338 (545)
✓	P	Mass.	339 (575) Rogued 11/79
✓	Q	Mass.	341 (662)
✓	R	Mass.	342 (669)
✓	S	N.Y.	385
✓	T	N.Y.	386
✓	U	Ohio	358 x 356



1964  
1966  
1967

HEK 9-28-59  
Rev. 12-3-62  
Cort. 3-19-84

72 trees flowering (mostly)  
64 → 69 " not flowering ( " )  
136 141



1978

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

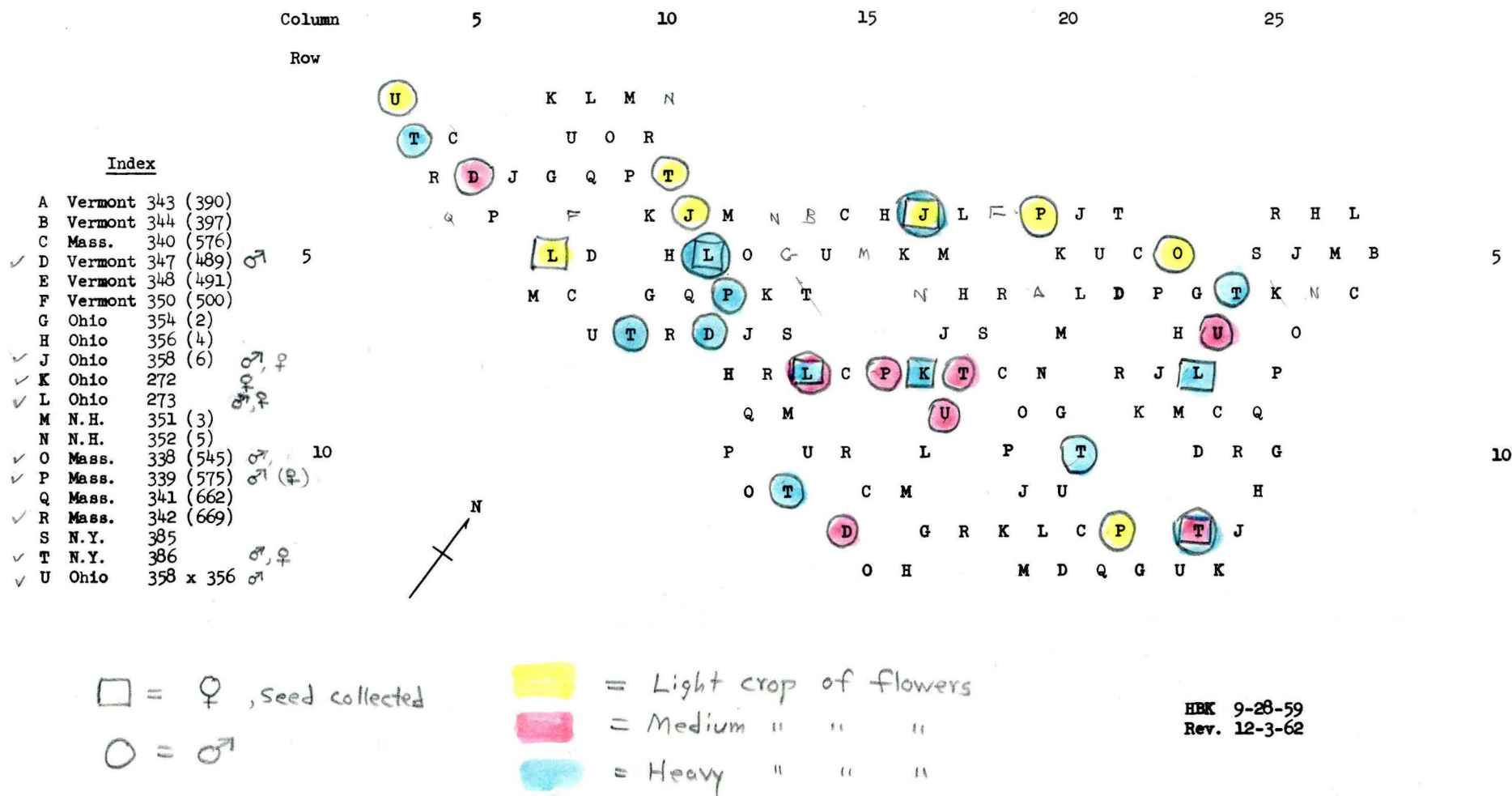
24 Feb 82

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

1978 Flowering and Seed Collection

Initiated in April, 1958  
Spacing: 30 x 30' triangular

7 clones flowered as males,  
5 clones flowered as females (seed collected from 4)  
8 clones flowered as either male, female, or both (4 clones bisexual)

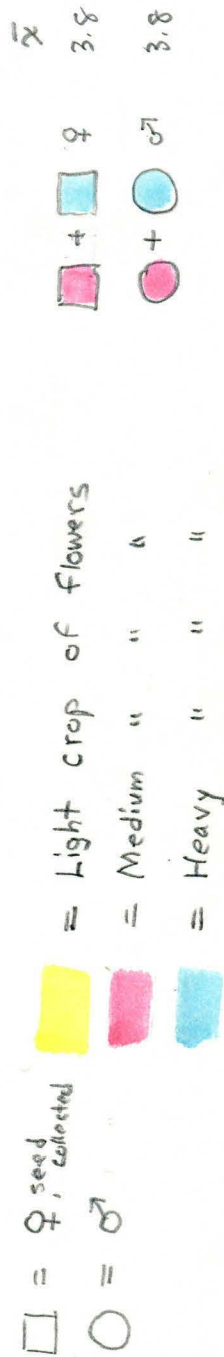
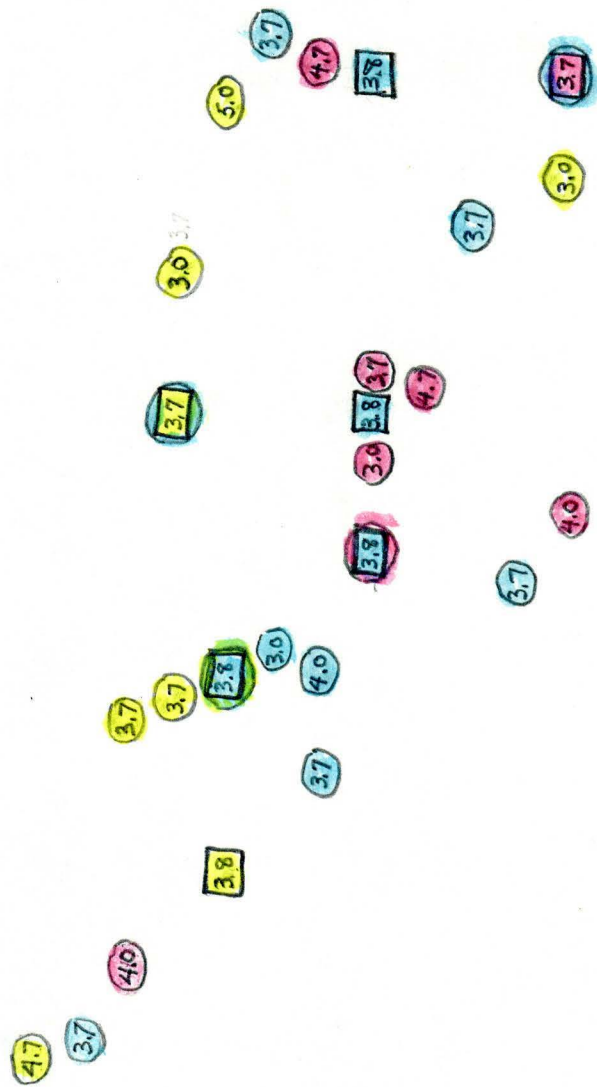




AC-1

24 Feb 82

# 1978 Flowering and Seed Collection in Relation to 1964-1982 Clonal Mean Sugar %





OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Oct. 8, 1976

1978

□ = seed production  
◻ = seed collection,  
Oct. 3, 1978

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Seed production\*

○ = very little  
⊙ = moderate

Initiated in April, 1958  
Spacing: 30 x 30' triangular

1979  
Cum.  
Average  
%O

Index

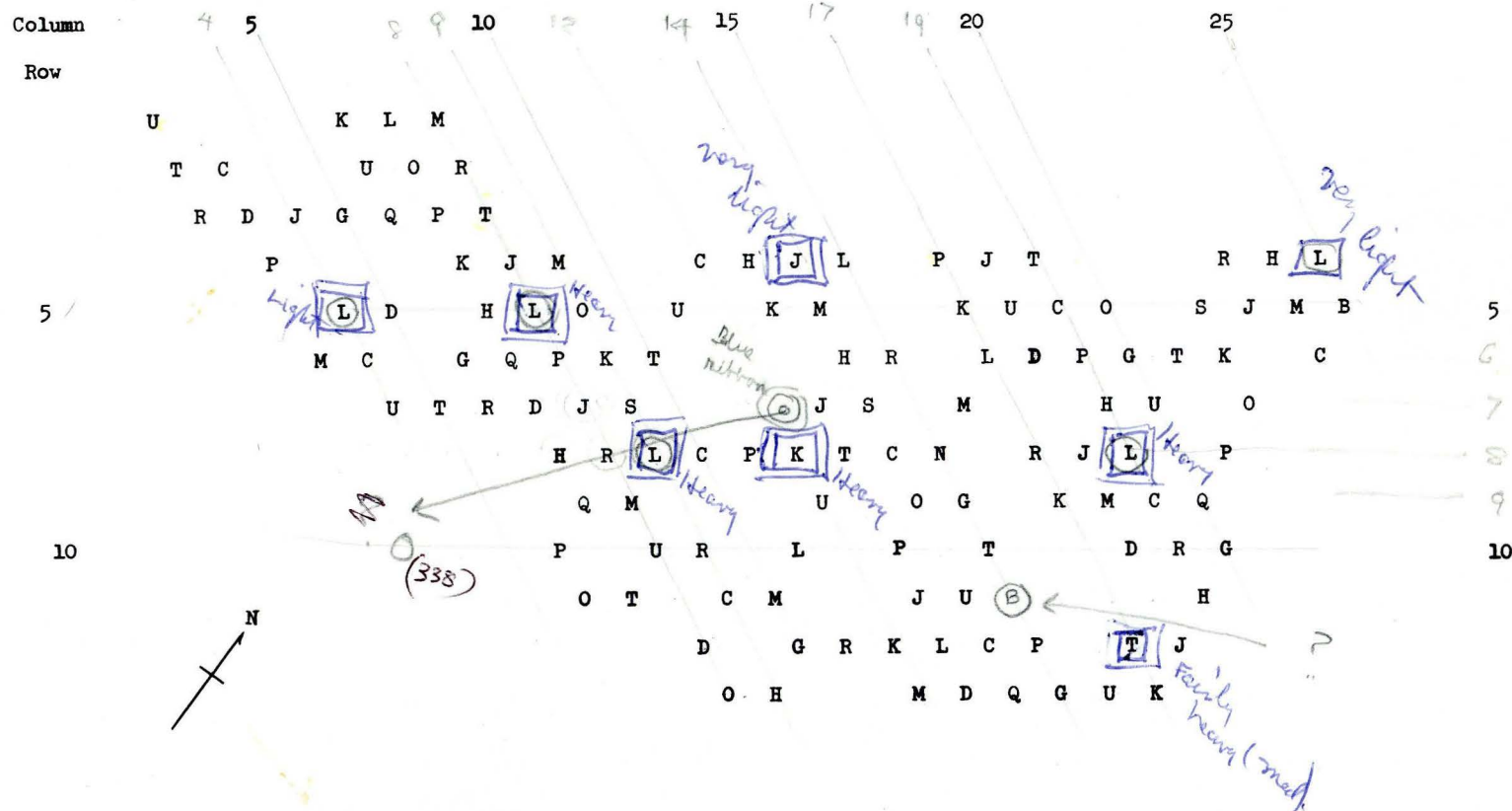
A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
D	Vermont	347	(489)
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Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356

3.6

3.8

3.8

4.7



\* Some seed may have been  
collected by the state

HBK 9-28-59  
Rev. 12-3-62



Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

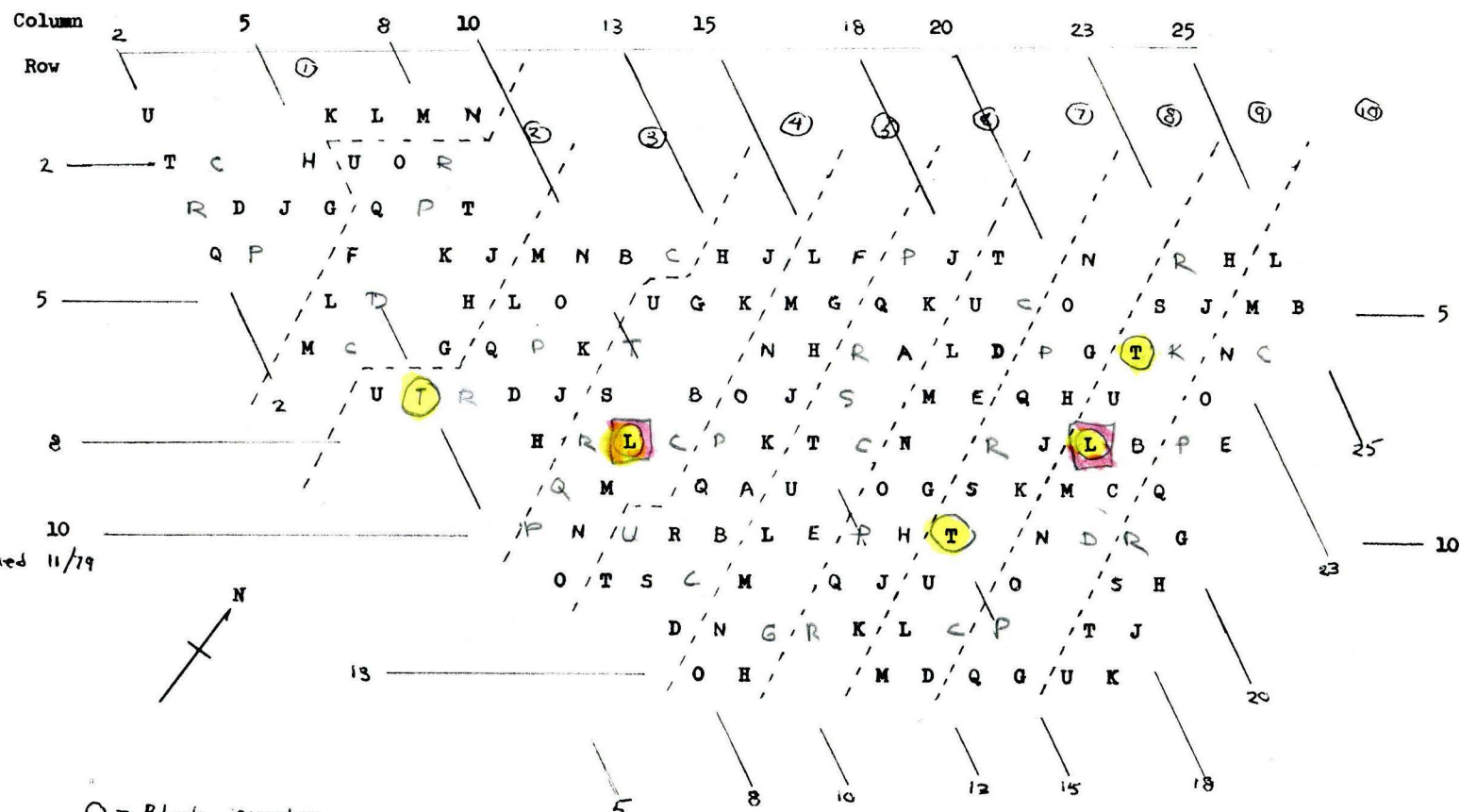
~~Corrected for  
removal of  
clones C, P and R  
(except R27-C6)~~

1974  
Flowering

2/9/88

	<u>Index</u>	
A	Vermont	343 (390)
B	Vermont	344 (397)
C	Mass.	340 (576)
D	Vermont	347 (489)
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<del>P</del>	<del>Mass.</del>	<del>339 (575)</del>
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N.Y.	385
T	N.Y.	386
U	Ohio	358 x 356

Requed 11/79



 =   
 = 

○ = Block number

Light  
Medium  
Heavy

HBK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



Flower

4/17/67

# OHIO AGRICULTURAL EXPERIMENT STATION

WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

O = ♂

O = ♀

O = Dead

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Column

5

10

15

20

25

Row

U

K L M

T C

U O R

R D J G Q P T

5 10 15 20 25

U K L M

T C U O R

R D J G Q P T

P L D H L O U K M K U C O S J M B

M C G Q P K T H R L D P G T K C

U T R D J S H J S M H U O

H R L C P K T C N R J L P

Q M U O G K M C Q

P U R L P T D R G

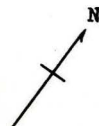
O T C M J U H

D G R K L C P T J

O H M D Q G U K

## Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
✓ D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
✓ J	Ohio	358	(6)
✓ K	Ohio	272	
✓ L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
✓ O	Mass.	338	(545)
✓ P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
✓ T	N.Y.	386	
U	Ohio	358	x 356



H = Heavy  
M = Medium  
L = Light

HEK 9-28-59  
Rev. 12-3-62



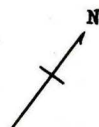
OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Index	
A	Vermont 343 (390)
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L	Ohio 273
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N	N.H. 352 (5)
O	Mass. 338 (545)
P	Mass. 339 (575)
Q	Mass. 341 (662)
R	Mass. 342 (669)
S	N.Y. 385
T	N.Y. 386
U	Ohio 358 x 356

Column	5	10	15	20	25
Row					
U		K L M			
T	C		U O R		
	R D J G Q P T				
5	P	K J M	C H J L	P J T	R H L
	L D	H L O	U K M	K U C O	S J M B
	M C	G Q P K T	H R	L D P G T K	C
	U T R D J S	J S	M	H U	O
	H R L C P K T C N	R J L	P		
	Q M	U	O G	K M C Q	
10	P	U R	L	P T	D R G
	O T	C M	J U	H	
	D	G R K L C P	T J		
	O H	M D Q G U K			



4/13/65

Buds swelling;  
no flowers yet

4/20/65

Buds much swollen  
no flowers yet  
(on leaves)

4/27/65

Buds mostly  
stage 3; some  
stage 4;  
no flowers yet

4/30/65

no flowers yet

10

5/3/65

no flowers yet  
lvs. stage 1 to 4

5/6/65

no flowers



Ac-13

1230  
1229  
1231

Blank

1229

Blank

1230

1231

Blank

1229

1231

1230

Blank

1231

1230

1229

5/5/66

Nearly all ♀ stigmas  
withered  
♂ at peak or slightly past

4/26/66

♀ at peak

# OHIO AGRICULTURAL EXPERIMENT STATION

WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

4/22/66

No flowers

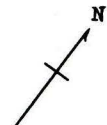
buds in stages 2-3

Initiated in April, 1958  
Spacing: 30 x 30' triangular

## Index

A	Vermont	343	(390)
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N	N.H.	352	(5)
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Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356

Column	5	10	15	20	25	
Row						
U		K L M				
T	C	U O R				
R	D J G Q P T					
P		K J M	C H J L	P J T	R H L	
5		L D H L O	U K M	K U C O	S J M B	5
	M C	G Q P K T	H R	L D P G T K	C	
		U T R D J S	J S M	H U	O	
		H R L C P K T C N	R J L	P		
		Q M	U O G	K M C Q		
10		P U R L	P T	D R G		10
		O T C M	J U	H		
		D G R K L C P	T J			
		O H	M D Q G U K			



very heavy

very few

♀ high  
♂ low



4/23/64

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

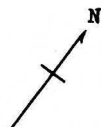
Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

		Column	5	10	15	20	25	
		Row						
			U	K L M				
			T C	U O R				
			R D J G Q P T					
			P	K J M	C H J L	P J T	R H L	
		5		L D H L O	U K M	K U C O	S J M B	5
			M C	G Q P K T	H R	L D P G T K	C	
				U T R D J S	J S	M	H U O	
				H R L C P K T C N		R L P		
				Q M	U O G	K M C Q		
		10		P U R L P T		D R G		10
				O T C M	J U	H		
				D G R K L C P		T J		
				O H	M D Q G U K			

Index

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Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U	Ohio	358	x 356



O = ♂  
O = ♀

HEK 9-28-59  
Rev. 12-3-62

Grafted  
scion on it  
(dead); is this  
a graft or stock?



(Notes on  
Recording of flow.)

Col. 1 1 - ♂  
2 - ♀  
3 - ♀ ♂

1 - l. ♂  
2 - ~~h.~~ ♂  
3 - h. ♂  
4 - l. ♀  
5 - m. ♀  
6 - h. ♀  
7 -

Heav. of flow.  
Col. 2

1 light  
2 med.  
3 heavy



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Fall, 1984 Roguing

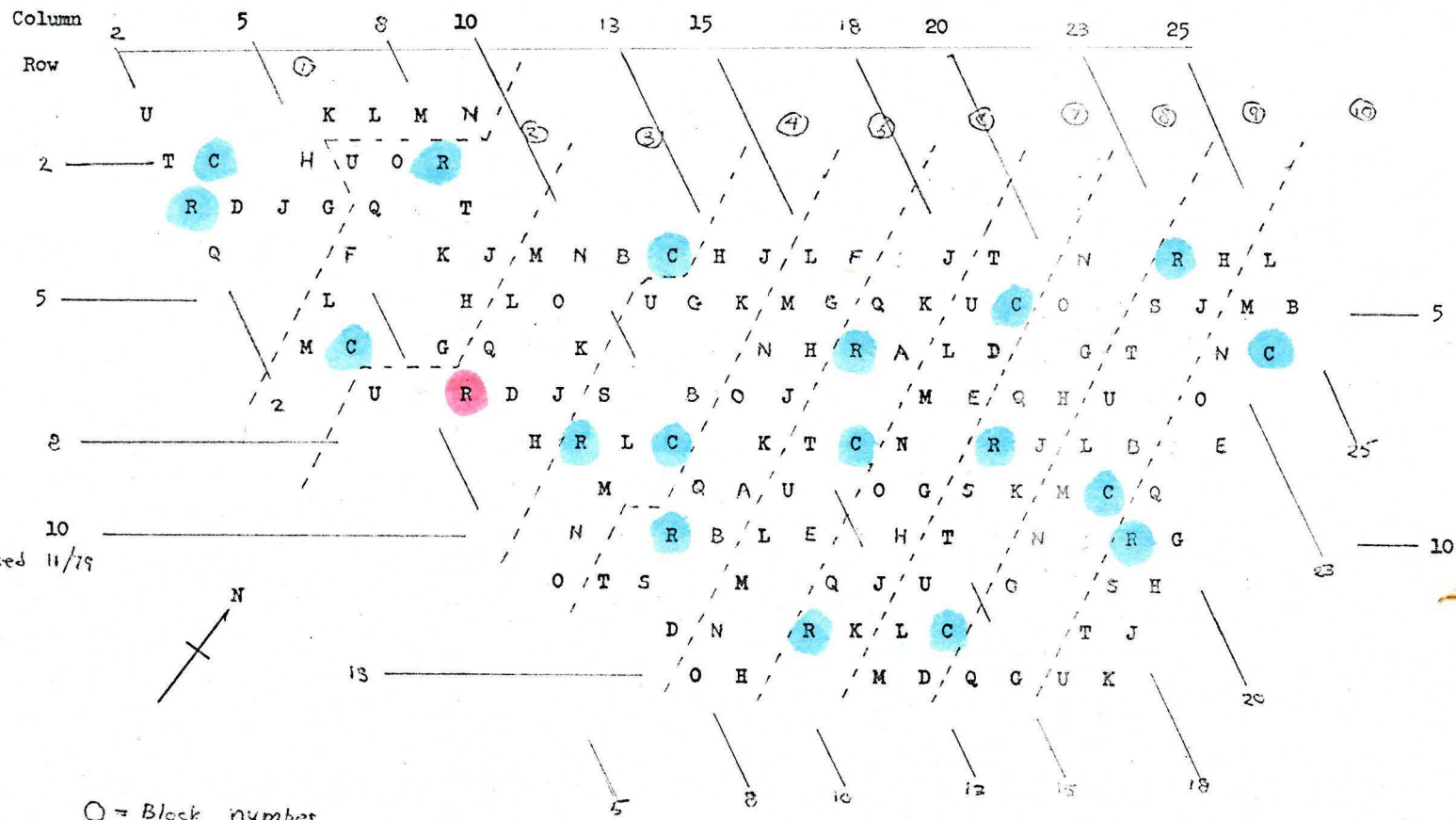
● = Removed

● Retained for possible hort. propagation

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Index

A	Vermont	343	(390)
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P	Mass.	339	(575) Rogued 11/79
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T	N.Y.	386	
U	Ohio	353	x 356



○ = Block number

HEX 9-28-59  
Rev. 12-3-62  
Corr. 3-18-84



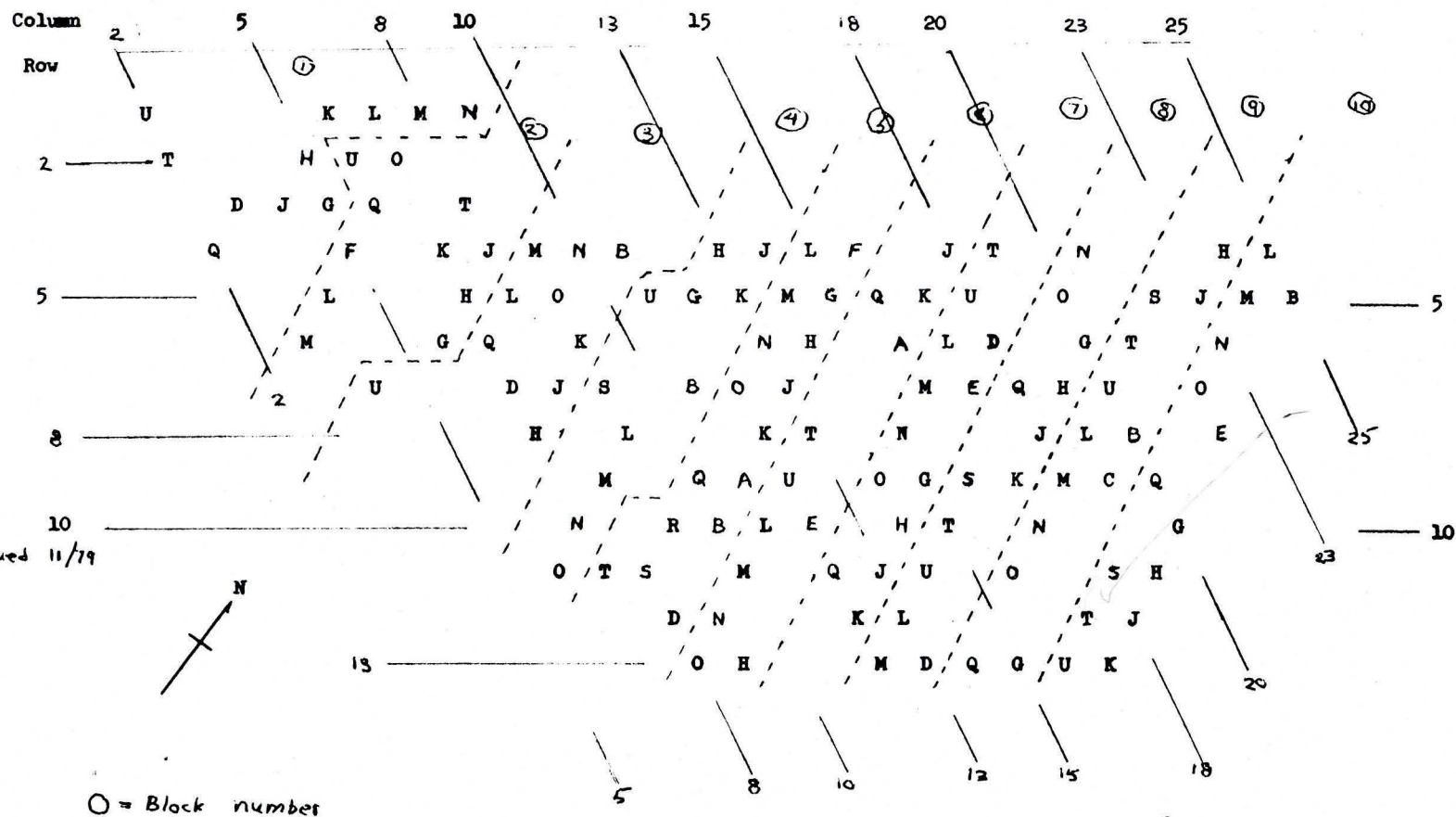
OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-66)

Index		
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T	N.Y.	386
U	Ohio	358 x 356



HEK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84

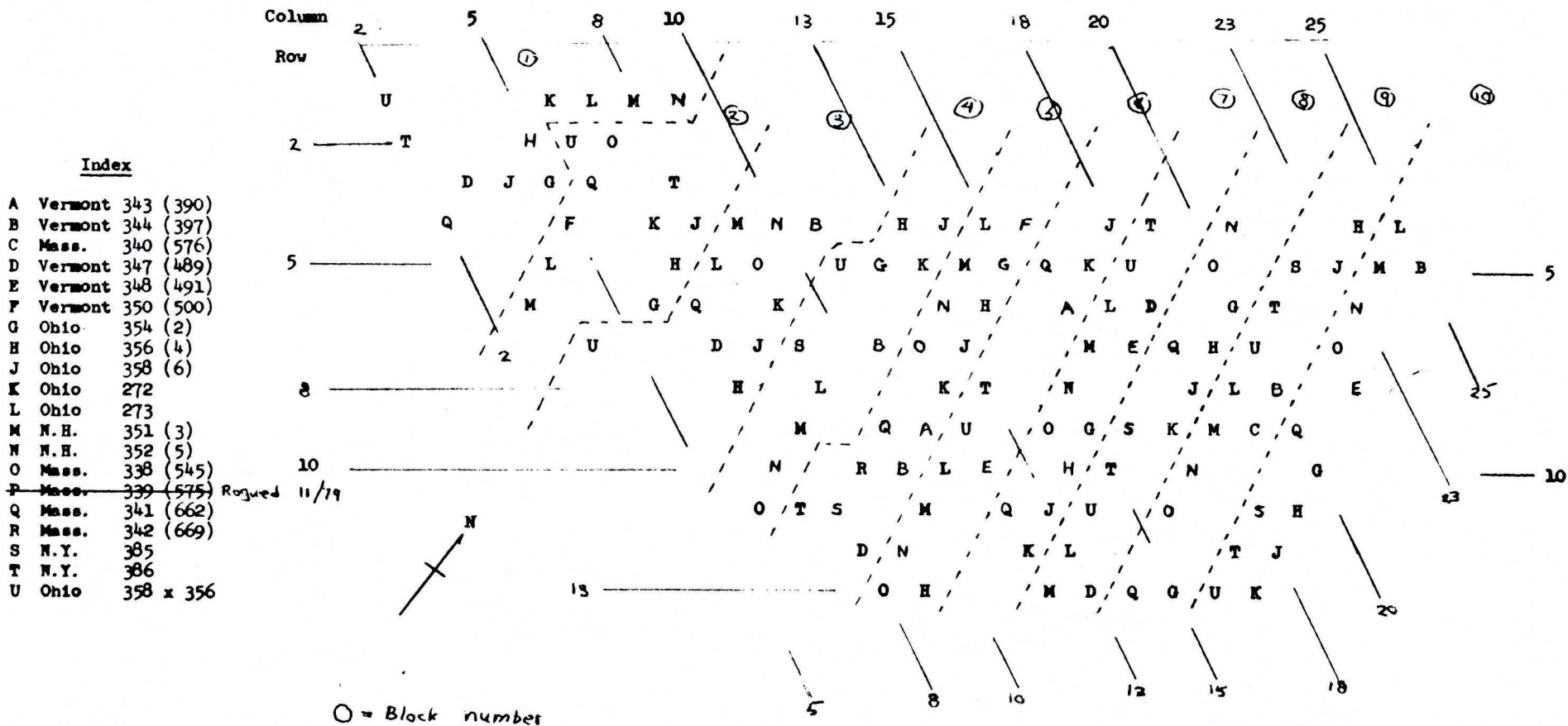


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-C6)



HEK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84

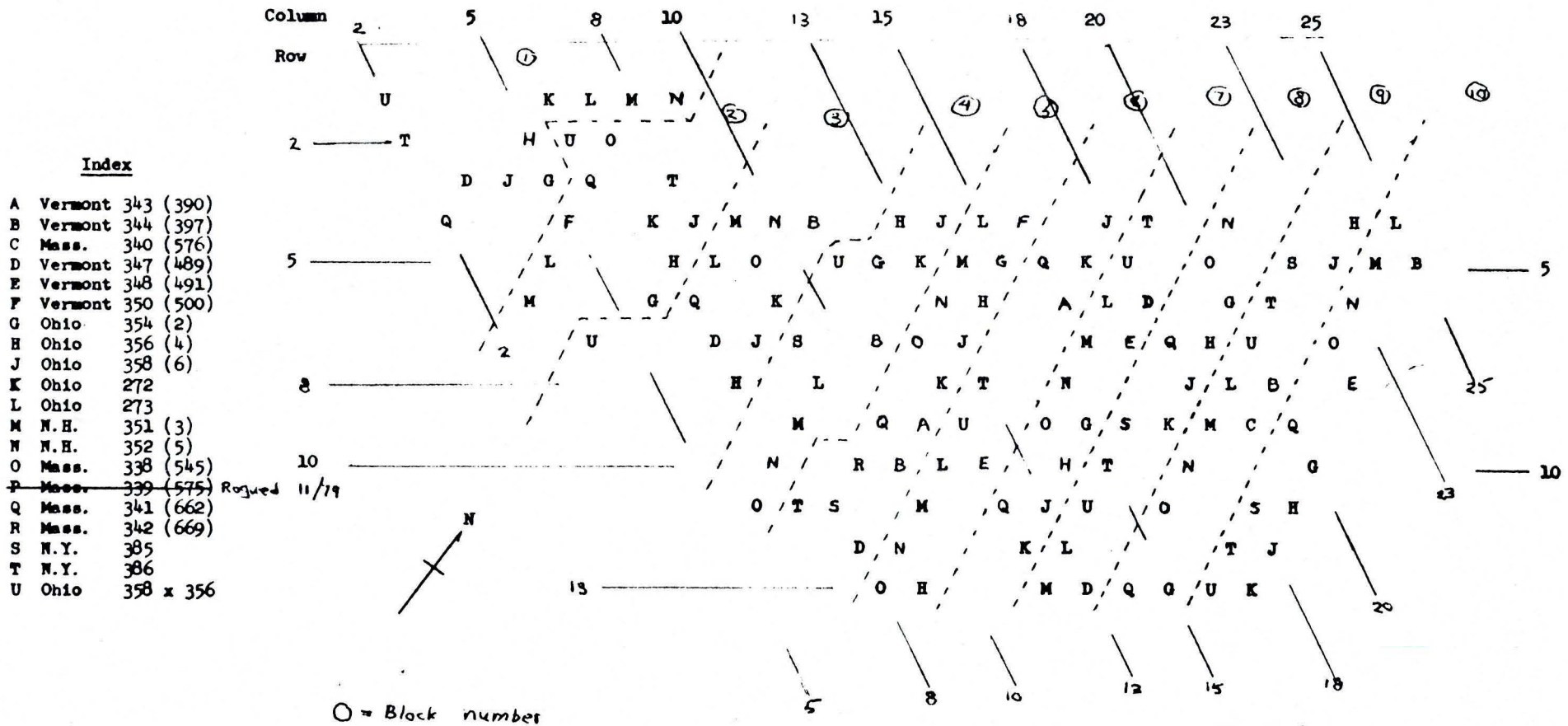


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R27-C6)



HEK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Corrected for  
removal of  
clones C, P and R  
(except R7-C6)

Column 2 5 8 10 13 15 18 20 23 25

Row 2 U K L M N H U O D J G Q T Q F K J M N B H J L F J T N H L 5 L H L O U G K M G Q K U O S J M B M G Q K N H A L D G T N 2 U D J S B O J M E Q H U O 8 H L K T N J L B E 10 M Q A U O G S K M C Q N R B L E H T N G O T S M Q J U O S H D N K L T J O H M D Q G U K

Row 11/79

N

O = Block numbers

HMK 9-28-59  
 Rev. 12-3-62  
 Corr. 3-19-84  
 Corr. 10-12-84

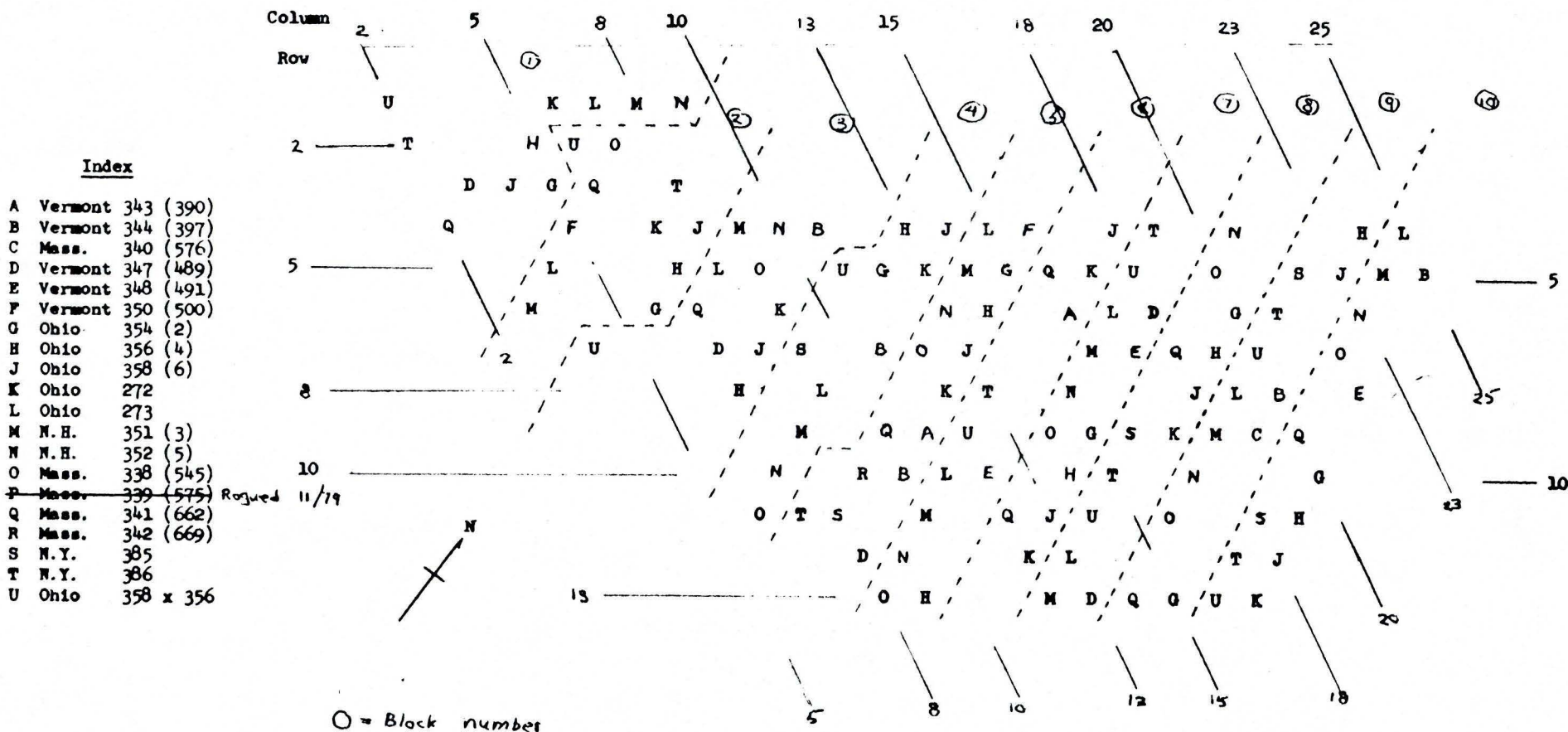


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Corrected for  
removal of  
clones C, P and R  
(except R7-c6)



HEK 9-28-59  
Rev. 12-3-62  
Corr. 3-19-84  
Corr. 10-12-84



AC.S.H.

Map of Sugar Maple Seed Orchard  
Apple Creek State Hospital  
Wayne County, Ohio  
Established April, 1958

U A (B) F K L M N  
T C (E) H U R O S  
S R (D) J G Q P T

9  
sub

Index

A	Vermont	343	(390)
B	Vermont	344	(397)
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R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

Q P O F E K J M N B C H J L F P J T (B) N (E) R H L A  
N (L) (D) A H L (O) (A) U G K M G Q K U C O (F) S J M B  
M (C) B G Q P (K) (T) (F) A N H R A L D P G T (K) N C  
U (T) R D J S E B O J (S) (B) M (E) Q H U A O (D)  
(S) (E) H R L C P K T C N (F) R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T (A) N D R G  
O T S C M F Q J U (B) O E S H  
E D N G R K L C P F T J  
O H S (A) M D Q G U K

Trees removed Nov. 1977  
by OEP  
(rootstocks never grafted)



Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

O = female

$1 = \text{light}$

22 ned

3 = heavy

No flowering 4/23/68

no flowering 4/17/68

Column	5	10	15	20	25
Row					
	U	K L M			
	T C	U O R			
	R D J G Q P T				
	P	K J M	C H J L	P J T	R H L
5	L D	H L O	U K M	K U C O	S J M B
	M C	G Q P K T	H R	L D P G T K	C
	U T R D J S	J S	M	H U	O
		H R L C P K T C N	R J L	P	
		Q M	U O G	K M C Q	
10		P U R	L P T	D R G	
		O T C M	J U	H	
		D G R K L C P	T J		
		O H	M D Q G U K		

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Mass.	340	(576)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N. H.	351	(3)
N	N. H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N. Y.	385	
T	N. Y.	386	
U	Ohio	358	x 356

HEK 9-28-59  
Rev. 12-3-62



(Sent to Gabriel in 1967  
for joint paper)

**Notes on Flowering Habits  
of Sugar Maple in Ohio**

H. B. Kriebel

I kept close observations on a row of about 15 or 20 fairly large trees on a lane on our campus here, for several years. I used several of these trees for crossing in 1955.

Some of the trees were predominantly male, others predominantly female. The "sweetest" tree produced a heavy crop of female "flowers" every year. The next sweetest was predominantly male. More trees were protogynous than protandrous. Two trees were predominantly male, several predominantly female, the rest not noticeably one or the other.

I found no physiologically perfect flowers. We obtained some vigorous seedlings from unpollinated bags which appear to be the result of apomixis rather than incomplete emasculation. This, of course, agrees with other work, and I gather you have obtained similar data. I mention these results because they are from a different region than Wright's or yours, and I have noted that sometimes John's information on tree flowering habits in Philadelphia doesn't hold here.

Flowering began in our sugar maple seed orchard in 1964. Most of these trees had been grafted in 1957, some were budded in 1958. The grafts and buds were all from trees of flowering age. Thus, it took about 7 years after grafting for scions from flowering trees to produce the first flowers. (This does not include flowers from buds formed before grafting). It was 9 years before flowering was heavy on any trees. It appears as though 10-11 years is a practical minimum for breeding work on grafted trees.

Trees from seedlings, on the other hand, have not flowered yet; none at all. This includes 13-year-old trees in seed source tests, and also trees about 18 years old in a "seedling source" test.



Flowering of grafted trees appears to follow clonal lines rather than being random or site-determined. That is, several ramets of certain clones have flowered. The ramets from our most heavily-flowering female ortet mentioned above flowered in 1964, and heavily (female) in 1966. All flowers in 1964 were female, but they also had some males in 1966. A graft of your tree number 347 produced male flowers in 1964 and again in 1966. Is the ortet predominantly male? I would be interested in knowing.

All flowering in the seed orchard, which was still limited to 8 trees of 6 clones in 1966, was protogynous; the females were at a peak in 1966 around April 26, the males about May 4.

I found no effect of nitrogen fertilization on flowering, one or two years after application.



# Sugar Maple Seed Orchard

OCT. 1966  
(CSFTIC)

O. A. R. D. C.

## Results to date:

1. Environmental fluctuation in sugar content is wide
2. Certain trees in the wild average high or low over a period of years
3. ~~Seedlings~~ <sup>Seedling progenies</sup> from open pollination vary widely in S. C.
4. There is evidence of specific combining ability - crosses of high-test trees
5. Evidence indicates that there is very low general combining ability
6. Controlled pollination is essential, followed by progeny testing and selection
7. We have obtained some readings 25% higher (1-1½% sugar content) higher than any readings of either parent - might be able to achieve a 20-25% % gain in 1 generation of controlled breeding.
8. May be able to use F<sub>1</sub> seedlings of Superior x Superior directly, by thinning.
9. Alternative: - rooting of top F<sub>1</sub>'s
10. Or, a combination



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

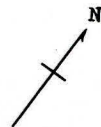
Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

		Column	5	10	15	20	25	
		Row						
			U	K L M				
			T C	U O R				
			R D J G Q P T					
			P	K J M	C H J L	P J T	R H L	
		5	L D	H L O	U K M	K U C O	S J M B	5
			M C	G Q P K T	H R	L D P G T K	C	
			U T R D J S	J S	M	H U	O	
			H R L C P K T C N	R J L	P			
			Q M	U	O G	K M C Q		
		10	P U R	L	P T	D R G		10
			O T	C M	J U	H		
			D	G R K L	C P	T J		
			O H	M D Q G U K				

Index

A Vermont 343 (390)  
B Vermont 344 (397)  
C Mass. 340 (576)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U Ohio 358 x 356



Replaced  
April 6, 1965.  
with 273. who bear seeds.

HBK 9-28-59  
Rev. 12-3-62



Legend.

- 1 - O New. root. stock.  
 2 - O original. root. stock.  
□ To be checked in spring.  
 X No scions.

9 = ~~not~~ neither graft nor root stock replaced this date.

~~3 = graft alive & healthy~~

Initiated in April, 1958  
 Spacing: 30 x 30' triangular

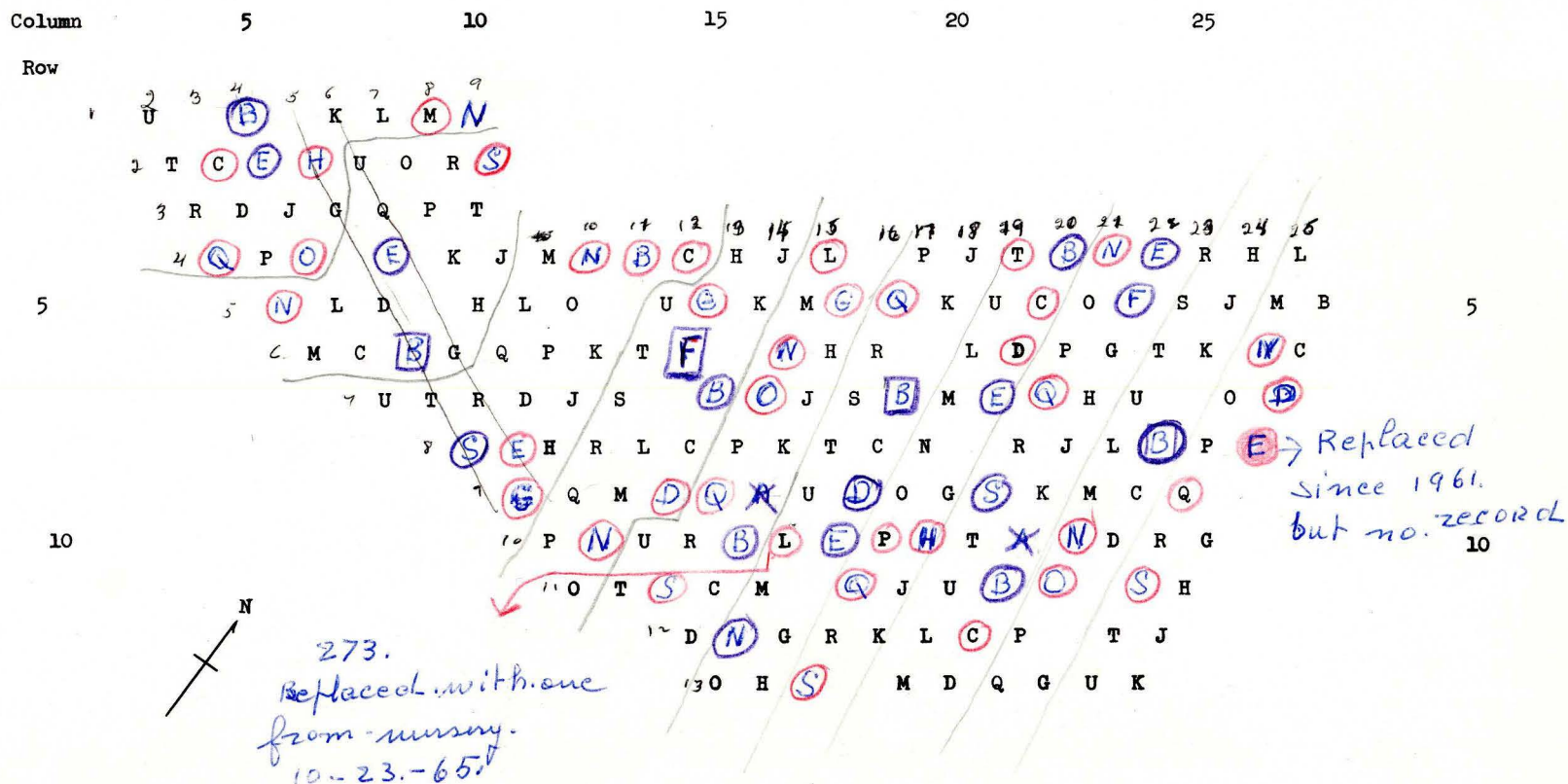
OHIO AGRICULTURAL EXPERIMENT STATION  
 WOOSTER, OHIO

Sugar Maple Seed Orchard  
 Plantation AC-1  
 (Apple Creek State Hospital)

Root. stock.  
 replacement.  
 10-23-1965.

by Pouly + Ruziff.

Index		
A	Vermont	343 (390)
B	Vermont	344 (397)
C	Mass.	340 (576)
D	Vermont	347 (489)
E	Vermont	348 (491)
F	Vermont	350 (500)
G	Ohio	354 (2)
H	Ohio	356 (4)
J	Ohio	358 (6)
K	Ohio	272
L	Ohio	273
M	N. H.	351 (3)
N	N. H.	352 (5)
O	Mass.	338 (545)
P	Mass.	339 (575)
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N. Y.	385
T	N. Y.	386
U	Ohio	358 x 356





Legend.

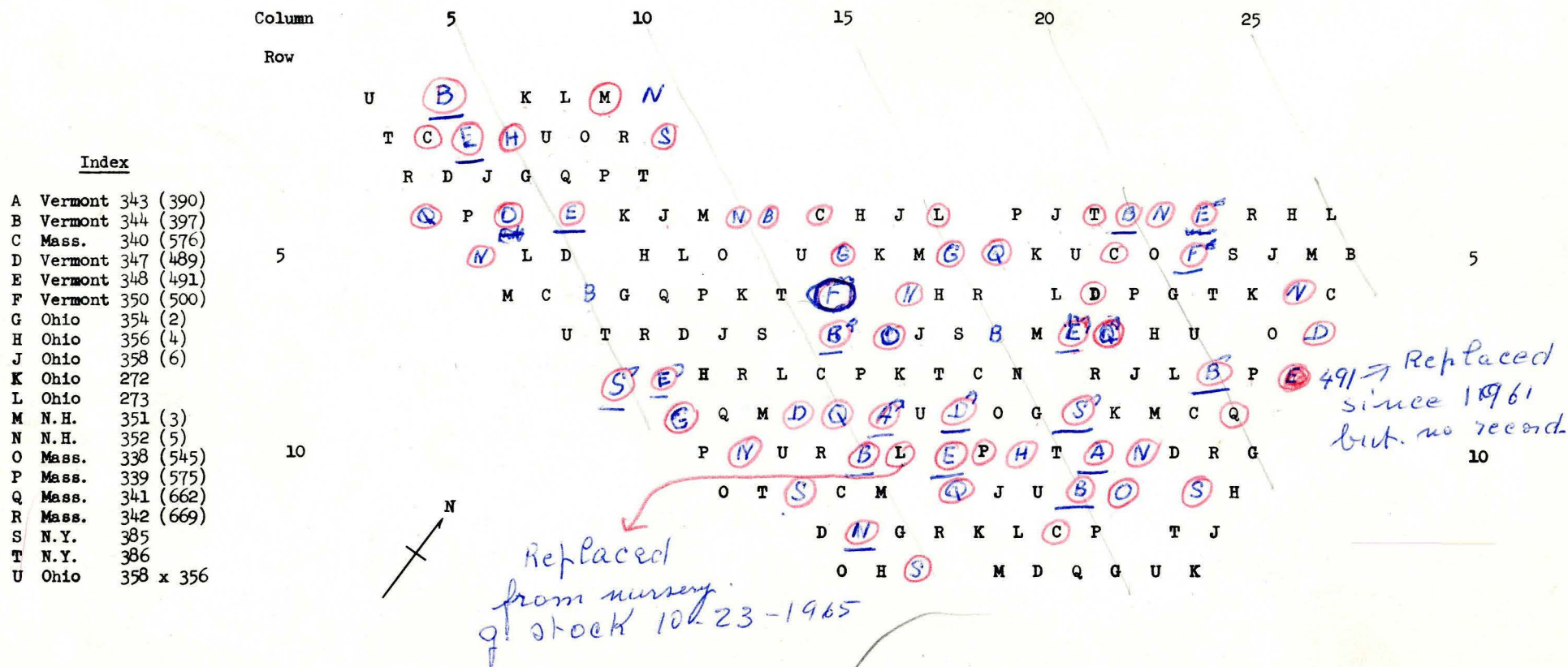
- (N) new R. stock.  
(B) old or existing R. stock.

New root stocks planted  
Oct. 22 and 23, 1965.

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular





to be replaced with 273

AC-1

R - C	Acc No	4/5/5
13-15	354	1.6
12-15	339	1.7
11-15	No Label	1.6
10-15	"	2.1
9-15	"	1.5
8-15	"	1.9
7-15	"	1.4
6-15	"	1.8
4-14	"	3.0
5-14	"	2.0
6-14	356	4.2
7-14	No Label	1.9
8-14	"	1.7
9-14	545	3.3
11-14	6x4	2.5
13-14	341	-
13-13	347	2.2
* 12-13	Root stack	2.3
11-13	No Label	2.1
10-13	"	2.1
9-13	"	1.5
8-13	"	1.7
7-13	358	2.6
5-13	No label	1.4
4-13	"	2.1
6-12	"	1.6
8-12	"	2.1
9-12	358x356	3.3
12-12	272	1.5
13-12	351	-
13-11	Root Stack	2.4
12-11	No Label	2.0
10-11	"	2.0
9-11	"	1.6
8-11	"	-
7-11	"	1.6
6-11	"	-
5-11	358x356	-
5-10	No Label	1.5
6-10	NY-2	2.1
8-10		-
10-10	No Label	3.4
11-10	3	1.8
12-10		-
13-9		-
12-9	No Label	-



AC-1

R	C	Acc No	4/5/65
13	13-9		-
	12-9		-
	11-9		-
	10-9		-
	8-9	273	2.4
	7-9	No Label	2.1
	6-9	"	1.9
	5-9	545	1.8
	4-9	No Label	1.4
	1-9	3	2.2
	1-8	3	-
	2-8	669	2.0
	3-8	NY-2	2.1
	4-8	No Label	2.2
	5-8	"	1.3
	6-8	339	1.5
	7-8	No-Label	3.0
	8-8	560	1.8
	9-8	No Label	1.9
	10-8	358x356	2.7
	12-8	347	1.4
	13-8	338	-
	11-7	No Label	-
	9-7		-
	8-7	4	2.5
	7-7	No Label	2.4
	6-7	662	-
	5-7	No Label	-
	4-7		-
	3-7	-	1.7
	2-7	545	-
	1-7	273	-
	1-6	272	-
	2-6	358x356	-
	3-6	No Label	2.0
	5-6	"	-
	6-6		-
	7-6	669	1.7
	8-6	No Label	1.9
	10-6	"	-
	11-6	"	2.4
	8-5	"	2.4
	7-5	"	2.0
	6-5	"	0.8
	5-5	"	1.6
	4-5	"	1.7
	3-5	2	1.3



Ac - 1

4/5/65

R	C	Acc. No.	4/5/65
04-25		273	1.9
04-24		356	2.1
05-24		351	1.7
06-24		340	1.3
04-23		342	1.7
05-23		358	1.7
04-22		No Label	1.8
05-22		NY-1	1.5
06-22		272	1.3
07-22		338	2.0
08-22		491	2.0
08-21		339	1.4
06-21		386	2.0
05-21		No label	2.3
04-20		No label	1.6
05-20		"	2.2
06-20		390	-
07-20		358x356	2.3
08-20		No Label	3.1
10-20		"	1.7
10-19		356	2.3
10-19		342	1.8
9-19		340	1.2
8-19		273	2.1
7-19		356	3.4
6-19		No label	1.9
5-19		"	1.7
4-18		"	2.2
5-18		"	3.0
6-18		"	2.2
8-18		Root stock	2.3
9-18		351	2.1
10-18		347 D	1.6
12-18		358	2.1
13-17		272	-
12-17		No label	-
9-17		272	1.5
8-17		669	1.7
7-17		No Label	1.6
6-17		273	2.1
5-17		No Label	2.0
4-17		339	1.4
6-16		No Label	2.5
7-16		"	2.0
8-16		"	2.0
10-16		"	1.6
13-16		358x356	2.1



AC-1

R-C	Acc No	4/15/65
1-4	No Label	1.4 -
2-4	"	1.4 -
3-4	358	1.4 -
5-4	No Label	2.0 -
6-4	340	-
7-4	358x356	2.2 -
4-3	339	-
3-3	498	2.6 -
3-2	669	2.2 -
2-2	NY-2	2.6 -
1-2	358x356	2.6 -



R-C												
0102	358 x 356	2.8	0807	662	1.2	0710	no tree 340		0415	273		
0202	NY 2	2.3	0507		2.4	0810	340		0416		4.3	
0302	669	2.2	0407		—	0910	no tree		0615	342	0.8	
0403	339	—	0307	339	1.5	1010	358 x 356	5.1	0715	Rtstk	0.8	
0303	499	3.2	0207	545	2.7	1110	3	2.1	0714			
0104	—	—	0107	273	2.3	1210	2					
0204	Rtstk	1.5	0108	3	2.2	1310	no tree					
0304	358	1.8	0208	669	1.2	1311	Rtstk	2.3				
0404	no tree		0308	NY2		1211	669					
0504	273	2.9	0408		2.4	1111	no tree					
0604	no + tested		0508		2.1	1011						
0704	358 x 356	2.0	0608	339		0911						
0805	Rtstk		0708		3.2	0811						
0905	NY2	—	0808	<del>669</del> 342	1.3	0711						
0605	Rtstk	2.1	0908	3	2.7	0611	Rtstk?					
0505	347		1008	358 x 356	3.4	0511	358 x 356	1.9				
* 0405		2.0	1108	no tree		0411						
0305	354	2.1	1208	347	3.1	0412		2.3				
0106	272	1.9	1308	338		0512						
0206	358 x 356	2.3	1309	356		0413						
0306	341	1.8	1209			0514	3?	2.2				
0406	no tree		1109			0614	356	1.8				
0506	Rtstk	1.8	1009	<del>669</del> 342	2.4	0612	Rtstk	1.5				
0606	not tested		0909	no tree		0812	272	1.6				
0706	669	1.0	0809	273	2.0	0912	358 x 356	4.1				
0806	Rtstk	1.7	0709	Rtstk	1.9	0212	272	1.6				
0906	no tree		0609	272		1312	351					
1006	339	1.1	0509	<del>338</del> 345		1113	358?	2.6				
1106	338	1.9	0409	351	2.4	1013	339	1.4				
1107	386	2.1	0309	no tree		0913	Rtstk	1.4				
1007	no tree		0209	no tree		0813						
0907	not tested		0109	351	2.5	0713	358	1.4				
0807	356	2.1	0510		1.4	0513						
0707	D?	—	0610	386		0414						



AC-1

3/19/64

R/C	Access No.	% Sugar	R/C	Access No.	% Sugar	R/C	Access No.	% Sugar				
0525	397	-	0521	Rtstk. ✓	3.2	0419						
0624	340	1.8	0620	-		0418	358	0.7				
"	Rtstk. ✓	1.5	0719	356	2.5	0517	272	0.5				
0822	Rtstk. ✓	1.8	0818	Rtstk. ✓	3.6	0616						
1020	354	3.1	0917	272	1.5	0715	Rtstk. ✓	1.6				
1119	356	3.5	1016	Rtstk. ✓	1.1	0814						
1218	358	1.8	1115	Rtstk. ✓	1.5	0913	Rtstk. ✓	1.1				
1317	272	2.1	1214	340	-	1309	356	-				
1316	358x356	3.9	1313	347	2.2	1308	338	-				
1217	386	3.0	1312	351	2.8	1209		-				
1118	-		1213	273	-	1110	351	-				
1019	342	2.5	1114	358x356	3.2	1011	273	1.9				
0920	-		1015	386	1.1	0912	358x356	4.0	-?			
0821	339	3.3	0817	342	1.5	0813		-				
0722	338	3.3	0619	339	1.7	0714	Rtstk.	2.0				
0623	-		0520	338	3.0	0615	342	0.4				
0524	351	2.4	0421									
0425	273	2.0	0420	Rtstk. ✓	0.5							
0424	356	4.6	0519	340	2.1							
0523	358	2.5	0618									
0622	272	2.0	0717									
0820		-	0816	Rtstk. ✓	1.9							
0919	340	-	0915									
1018	-		1113	358	2.3							
1315	354	1.6	1212	-	-							
1314	341	1.3	1311	Rtstk. ✓	2.2							
1215	339	2.2	1310									
0918	351	3.2	1211	342	1.9							
0819	273	2.8	1112									
0720	358x356	3.1	1013	339	1.0							
0621	386	1.8	0914	338	1.0							
0522	385	1.4	0716	351	0.5							
0423	342	1.6	0617	273								
0422	Rtstk. ✓	2.4	0518	358x356	3.1							



65  
91  
156

# AC-1 Sap Tests

3/13/64

272	273	338 (545)	339 (575)	340 (576)	341 (662)	342 (669)	343 (390)	344 (397)	347 (489)
2.3	3.3	5.6	3.9	3.2	2.6	3.4			4.6
5.0	4.2	6.8	2.8	4.9	4.1	2.3			6.0
2.4	4.5	2.6	2.9	2.6		3.0			4.3
3.4	4.2	5.4	2.9	2.9		4.3			
2.5	4.5	5.6	3.0	5.0		4.1			
	3.5	4.7	3.6			2.5			
			2.5			4.1			
			3.0			2.7			
			2.8			2.8			
3.12	4.03	5.12	3.04	3.72	3.35	3.24			4.97
2.3-5.0	3.3-4.5	2.6-6.8	2.5-3.9	2.6-5.0	2.6-4.1	2.3-4.3			4.3-6.0
	5	2							3
348 (491)	350 (500)	351	352	354	356	358	385	386	358 x 50
		4.6		4.1	5.8	3.8	3.3	3.5	4.4
		5.2		3.0	5.9	2.1		5.3	6.1
		5.2		4.9	3.4	5.9		4.0	6.4
		4.3		3.2	4.2	3.5		3.4	6.2
		1.4			3.4	2.6		4.2	6.6
		4.4			4.5	2.7		3.2	4.5
		4.6			3.7	4.2			7.4
		3.1				3.3			2.6
		3.3				1.6			4.5
		3.3							
		3.94		3.80	4.41	3.30	3.30	3.93	5.41
		1.4-5.2		3.0-4.9	3.4-5.9	1.6-5.9		3.2-5.3	2.6-7.4
		6			4			7	1



## SAP TESTS

AC-1

3/13/64

C R	Acc No.	% Sugar	RC	Acc No.	% Sugar	RC	Acc No.	% Sugar	RC	Acc. No.	% Sugar
0525	397	-	0819	273	4.2	1311	Rtstk <sup>x</sup>	3.5	0713	358	2.7
0624	345	3.2	0720	358x356	6.4	1240			0812	272	2.3
-			0621	386	5.3	1211	342	4.3	0911	Rtstk <sup>x</sup>	5.5
0822	Rtstk <sup>p</sup>	2.3	0522	385	3.3	-			1010		-
-			0423	342	3.0	1013	339	2.9	1109	340	5.0
1020	354	4.1	0422	Rtstk <sup>v</sup>	4.7	0914	338	4.7	1208	347-487	6.0
1119	356	5.8	0521	Rtstk <sup>v</sup>	4.9	0815			1009	342	4.1
1218	358	3.8	0620	354		0716	351	1.4	-		
1317	272	5.0	0719	356	3.4	0617	273	-	0811		-
1316	358x356	4.4	0818			0518	358x356	6.2	-		
1217	386	3.9	0917	272	3.4	-			-		
-			1016	Rtstk <sup>x</sup>	3.7	0418	358	3.5	0514	351	4.4
1019	342	3.4	1115	Rtstk <sup>v</sup>	4.3	0517	272	-	0415	273	-
-			1214	340	-	0616		-	0414	358	2.6
0821	339(575)	3.9	1313	347	4.6	0715	Rtstk <sup>x</sup>	4.3	0513		-
0722	338	5.6	1312	351	5.2	0814	340	2.9	0612	Rtstk <sup>x</sup>	3.5
-			1213	273	-	0913	Rtstk <sup>v</sup>	4.6	0711	Rtstk <sup>v</sup>	3.3
0524	351	4.6	1114	358x356	6.1	-			0810	340(58)	-
0425	273	3.3	1015	386	3.5	-			-		
0424	356	5.9	0716	-		1210	354	4.9	1068	358x356	7.4
0523	358	2.1	0817	342	2.3	1309	356	4.2	1107	386	3.4
0622	272	2.4	-			1308	338	2.6	1106	338	5.4
-			0619	339	2.9	1209	Rtstk <sup>v</sup>	4.4	-		
0820	Rtstk <sup>v</sup>	4.9	0520	338	6.8	1110	351	4.3	0908	351	4.6
0919	340(576)12	4.9	-			1011	273	4.5	0809	273	4.2
1018	-		0420	Rtstk <sup>v</sup>	-	0912	358x356	6.6	-		
-			0519	340	2.6	0813		-	0611	Rtstk <sup>x</sup>	3.6
-			0618	Root Stock <sup>v</sup>	3.8	0714	Root Stock <sup>x</sup>	4.6	-		
1315	354	3.0	0717?	Rtstk <sup>v</sup>	2.6	0615	342	4.1	0413	356	4.5
1314	341	2.6	0816	Rtstk <sup>x</sup>	3.8	-			-		
1215	339(575)19	2.8	0915	354	-	0417	339(575)	3.0	0511	358x356	4.5
1116			-			0416		-	0610	386	4.0
-			1113	358	5.9	-			0709	Root St.	2.5
0918	351	5.2	1212	272	2.6	0614	356	3.4	0808	342?	2.5



## SAP TESTS

AC-1

3/13 164

RC	Acc No	% Sugar	RC	Acc No	% Sugar
0907	341	-	0306	341	4.1 -
1606	339	3.6 -	0207	545	-
0807	356	3.7 -	0108	351	3.3 -
0908	358	4.2 -	0107	273	3.5 -
0609	292	2.5 -	0206	358x356	-
0510	Rtstk <sup>x</sup>	2.5 -	0305	334	3.2 -
-			0404	-	
-			0403	339	2.8 -
0509	338	5.6 -	0304	358	1.6 -
0608	339(575)	2.5 -	0205	-	
0707	Root stock	3.6 -	0106	272	-
0806	Rtstk <sup>x</sup>	3.5 -	0105	-	
0805		-	0204	Rtstk <sup>x</sup>	2.3 -
0706	342	2.7 -	0303	347	4.3 -
0607	341	-	0302	342	-
0508		-	0203	-	
0409	351	3.1 -	0104	Rtstk <sup>x</sup>	3.3 -
0408	358	3.3 -	0103	Rtstk <sup>x</sup>	
0507		-	0202	386	3.2 -
0606			0102	358x356	4.5 -
0705	386	4.2 -			
0704	358x356	2.6 -			
0605	Rtstk <sup>x</sup>	4.6 -			
0506	Rtstk <sup>x</sup>	2.4 -			
0407		-			
0308	386	-			
0109	351	3.3 -			
0208	342	2.8 -			
0307	339(575)	3.0 -			
0406	-				
0505	Root stock <sup>x</sup>	4.4 -			
0604	346(576)				
0504	273	4.5 -			
0405		-			



R/C	CO	90		R. C			R. C		
01-09	209(3)	3.6	-	04-24	356 Ohio	4.7	06-18	to be pruned. Root stock	-
01-08	219(3)	-		04-25	273	2.5	06-19		-
01-07	273	4.0	-	05-25	397	-	06-20		-
01-06	272	-		05-24	351 NH	4.2	06-21	386 NY	-
01-04		-		05-23	358 Ohio	3.6	06-22	272 Ohio	-3.8
01-02	358x356	3.1	-	05-22	NY1	3.3	06-24		-
02-02	NY2	3.1	-	05-21		-	07-22	338 Maryland	-
02-04		-		05-20		-	07-20	358x356	-
02-06	358x356		-	05-19	340	5.0	07-19	100-4	-
02-07	545(647)		-	05-18		-	07-17	Rstsk	CK - 3.3
02-08	669		2.6	05-17		-	07-16		-
03-08	NY2		-	05-14		-	07-15		-
03-07	339(575)5		-	05-13		-	07-14		-
03-06			-	05-11	358-356		07-13	358	-
03-05	379(2)		-	05-10		-	07-11		-
03-04	6		-	05-09	545		07-09	Root stock	03.5
03-03	867		-	05-08	273(7)	3.5	07-08		-
03-02			-	05-07		-	07-07	347 D	-3.6
04-02	339(575)		-	05-06		-	07-07	Root stock	04.5
04-05			-	05-05	Root stock	-	07-06	669-568	-
04-06			-	05-04	273	2.7	07-05	NY2	-
04-07			-	06-04	240 (576)	-	07-04	6x4(356x358)	-
04-08	358		2.7	06-05	Root stock(?)		08-05		-
04-09			-	06-06		-	08-06	Rstsk	04.6
04-13			-	06-07	662	-	08-07	356 012-4	-4.5
04-14			-	06-08	339(575)11	-	08-08	560	-
04-15	273		-	06-09	272	-	08-09	273	-
04-16			-	06-10	NY2	-	08-10	340(576)11	-
04-17			-	06-11		-	08-11	339(575)10(?)	-
04-18	358		3.7	06-12		-	08-12		-
04-19	386 NY - Boring - dead			06-14	4	-	08-13	386	-4.2
04-20	Rstsk.		3.0 0	06-15		-	08-14		-
04-22	Rstsk.		5.1 0	06-16		-	08-15		-
04-23	342 Maryland		2.7	06-17	273	-	08-16	Rstsk. CK	-5.0



## SAP TESTS

AC-1

3/3/64

[illegible]



# FERTILIZATION TREATMENTS - To STIMULATE SEED PRODUCTION

February 17, 1964

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

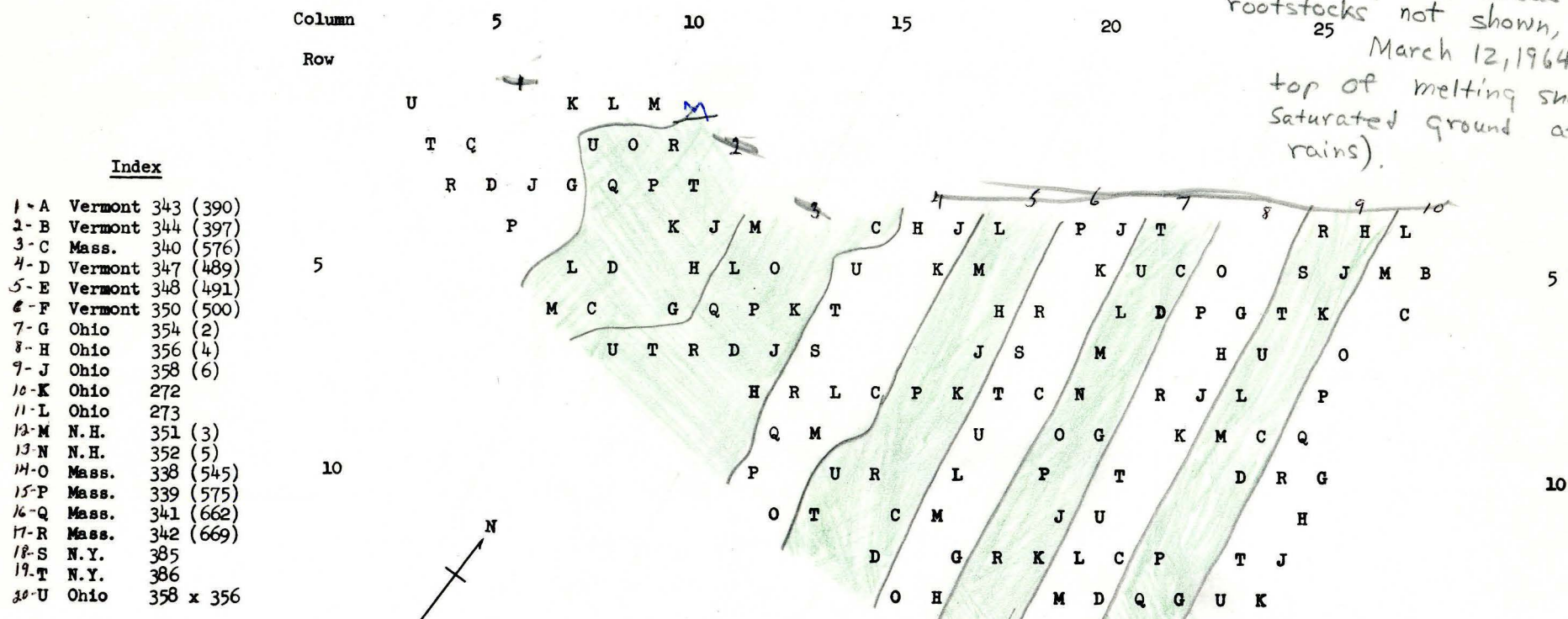
To be applied (if possible)  
before March 15, 1964)

Design: 5 2-treatment  
replications

Total: 48 lb.  $NH_4NO_3$   
(64 trees to be fertilized)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Fertilizer was applied to all  
trees in green areas, including  
rootstocks not shown, on  
March 12, 1964, on  
top of melting snow (on  
saturated ground after heavy  
rains).



Unfertilized

Fertilized,  $\frac{3}{4}$  lb. Ammon. nitrate  
per tree  
(4' radius)

HBK 9-28-59  
Rev. 12-3-62



AC-1

Sap Test Summary

3/13/64

	3/13	3/19 3/24	Mean									
272	5.0	2.1	3.6	339	3.9	3.3	3.6	347	4.6	2.2	3.4	
	2.4	2.0	2.2	(327)	2.8	2.2	2.5		6.0	3.1	4.5	
	2.6	-		575	2.9	1.7	2.3		4.3	3.2	3.8	
	3.4	1.5	2.4		2.9	1.0	2.0		5.0	2.8		
	2.3	1.6	2.0		3.0	-			3.9		3.90	
	2.5	-			3.6	1.1	2.4	351	4.6	2.4	3.5	
	-	0.5			2.5	-			5.2	3.2	4.2	
	-	1.9			3.0	1.5	2.2		5.2	2.8	4.0	
Mean	3.0	1.6			2.8	-			4.3	-		
Total mean	2.3		2.55		3.0	1.8			1.4	0.5	1.0	
273	3.3	2.0	2.6		2.5		2.50		4.4	-		
	4.2	2.8	3.5	340	3.2	1.8	2.5		4.6	2.7	3.7	
	-	-		(328)	4.9	-			3.1	2.4	2.8	
	-	-			2.6	2.1	2.4		3.3	2.5	2.9	
	4.5	1.9	3.2		2.9	-			3.3	2.2	2.9	
	-	-			5.0	-			3.9	2.3		
	4.2	2.0	3.1		3.7	2.0			3.2		3.10	
	4.5	2.9	3.7		3.2		2.45	354	4.1	3.1	3.6	
	3.5	2.3	2.9	341	2.6	1.3	2.0		3.0	1.6	2.3	
Mean	4.0	2.3			-	1.7			4.9	-		
Total mean	3.2		3.17		4.1	1.8	3.0		3.2	2.1	2.7	
338	5.6	3.3	4.4		3.4	1.6			3.8	2.3		
(323) 545	6.8	3.0	4.9		2.3		2.50		3.1		2.87	
	2.6	-		342	3.4	2.5	3.0	356	5.8	3.5	4.6	
	5.4	1.9	3.6		2.3	1.5	1.9		5.9	4.6	5.3	
	5.6	-			3.0	1.6	2.3		3.4	2.5	2.9	
	4.7	1.0	2.8		4.3	1.9	3.1		4.2	-		
Mean	5.12	2.3			4.1	0.6	2.4		3.4	1.8	2.6	
Total mean	4.0		3.92		2.5	1.3	1.9		4.5	-		
					4.1	2.4	3.3		3.7	2.1	2.9	
					2.7	1.0	1.9	+ 12%	4.4	2.9		
					2.8	1.2	2.0		3.8		3.67	
					-	2.2						
					3.2	1.6						
					2.4		2.42					



[illegible]



## AC-1 sap tests

3/19/64

272	273	338	339	340	341	342	343	344	347
2.1	2.0	3.3	3.5	1.9	1.3	2.5			2.2
2.0	2.8	3.0	2.2	2.1		1.6			
1.5	1.9	1.0	1.7			1.5			
0.5			1.0			1.9			
						0.4			
1.52	2.23	2.43	2.05	1.95	1.30	1.58			2.20
0.5-2.1	1.9-2.8	1.0-3.3	1.0-3.3	1.8-2.1		0.4-2.5			
12	5	4	8	10	14	11			7
348	350	351	352	354	356	358	385	386	358 x 356
		2.4		3.1	3.5	1.8	1.4	3.0	3.9
		3.2			4.6	2.5		1.8	3.1
		2.8			1.7	2.3		1.1	3.1
		0.5			2.5	0.7			3.2
									4.0
					10.6				
		2.22		3.10	3.05	1.82	1.40	1.97	3.46
		0.5-3.2			2.5-4.6	0.7-2.5		1.1-3.0	3.1-4.0
		6		2	3		13	9	1







Year 1962

## GRAFTING RECORDS

Page            of            Pages

Date stocks brought into greenhouse Field grafting (AC-1)

Rootstock Age C. 6

Before grafting: photoperiod \_\_\_\_\_ hrs.; temp. \_\_\_\_\_ °F.

Rootstock Source State nursery

After grafting: photoperiod hrs.; temp. °F.

Date Stocks potted

Mist cycles:

Nutrition:

Some trees in stage 3, some in stage 2 : liquid latex coating on scions ; Treekote on union. Stocks cut back.

[illegible]

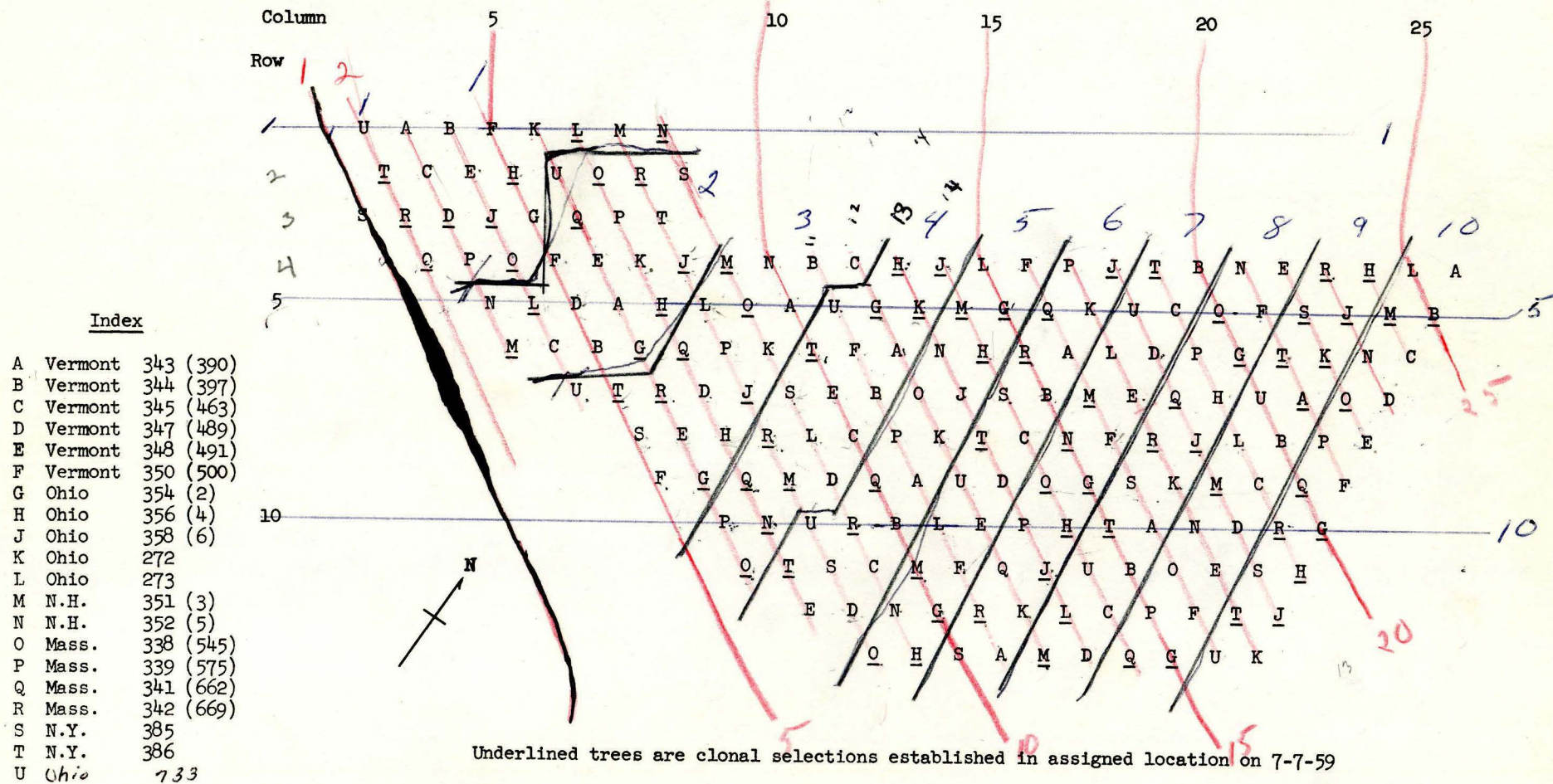


Row  
Column  
Replicate

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)



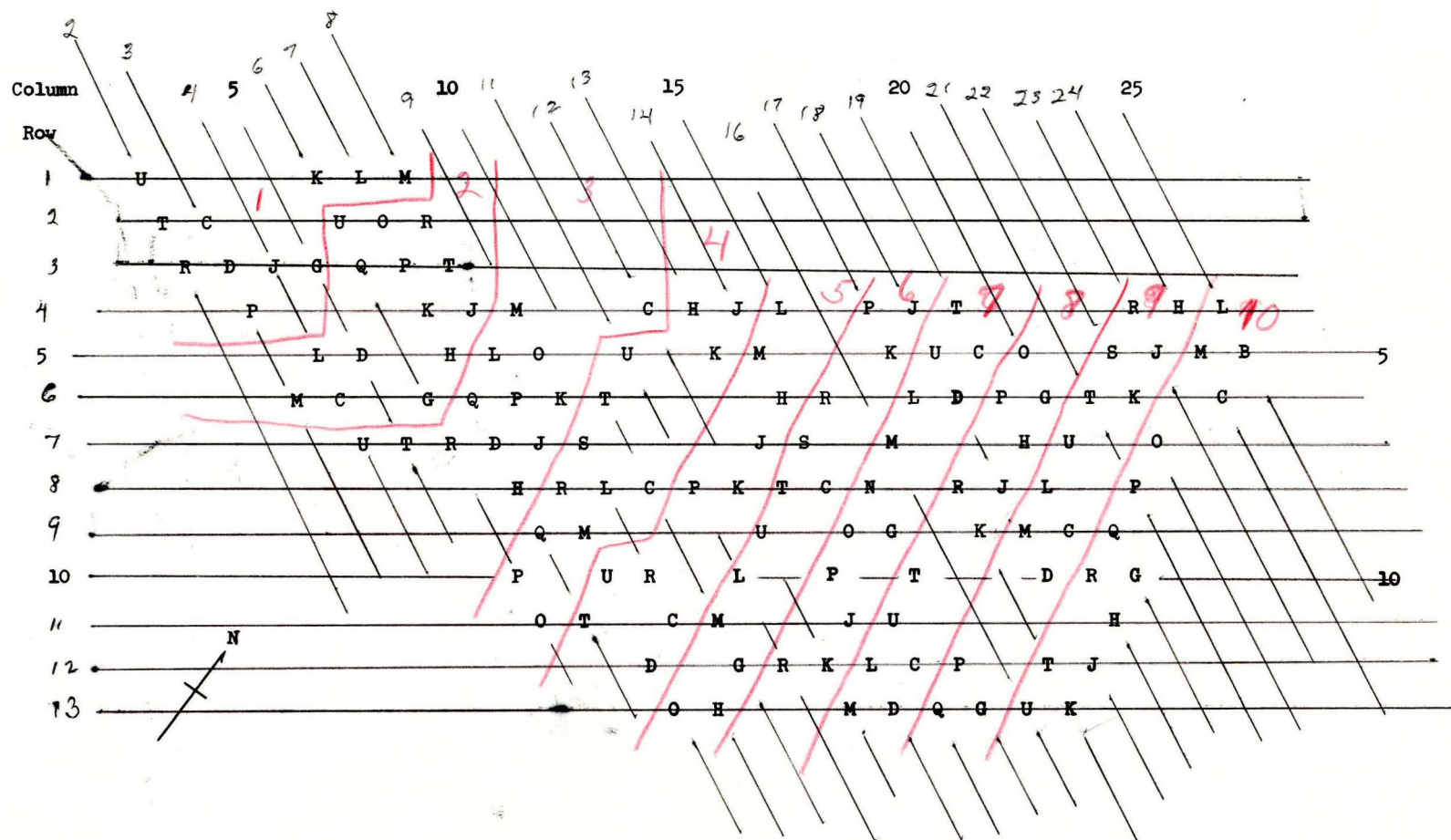


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Index		
1-A	Vermont	343 (390)
2-B	Vermont	344 (397)
3-C	Mass.	340 (576)
4-D	Vermont	347 (489)
5-E	Vermont	348 (491)
6-F	Vermont	350 (500)
7-G	Ohio	354 (2)
8-H	Ohio	356 (4)
9-J	Ohio	358 (6)
10-K	Ohio	272
11-L	Ohio	273
12-M	N.H.	351 (3)
13-N	N.H.	352 (5)
14-O	Mass.	338 (545)
15-P	Mass.	339 (575)
16-Q	Mass.	341 (662)
17-R	Mass.	342 (669)
18-S	N.Y.	385
19-T	N.Y.	386
20-U	Ohio	358 x 356 739



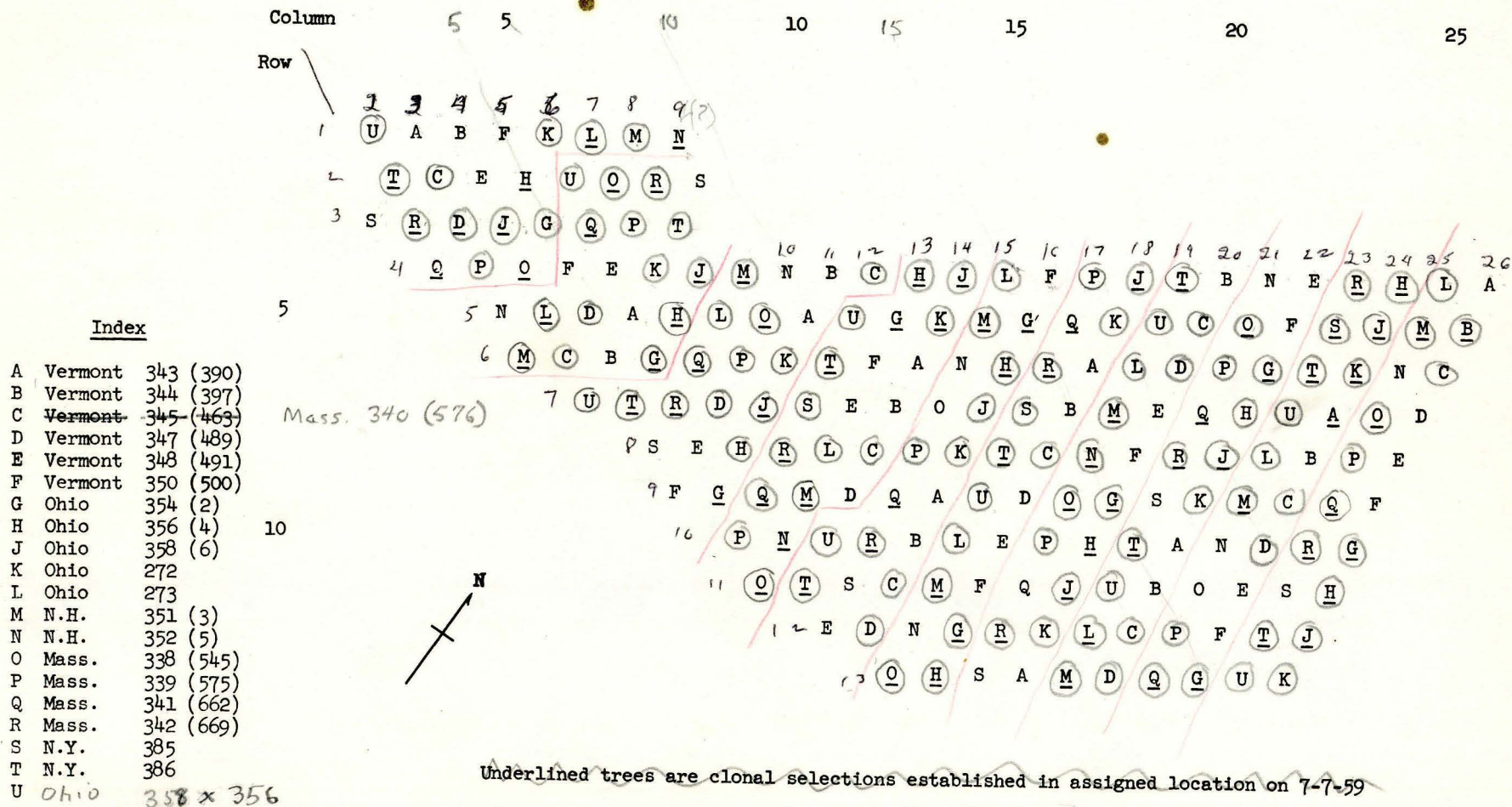


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

12/3/62

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)





OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

□ = source of  
scions  
○ = grafted tree

4/25/62  
4/24/62

Column 5 10 15 20 25

Row

Notations

4/27/64

Living ones - stocks  
cut back 4/27/64

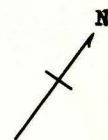
Index

A	Vermont	343 (390)
B	Vermont	344 (397)
C	Vermont	345 (463)
D	Vermont	347 (489)
E	Vermont	348 (491)
F	Vermont	350 (500)
G	Ohio	354 (2)
H	Ohio	356 (4)
J	Ohio	358 (6)
K	Ohio	272
L	Ohio	273
M	N.H.	351 (3)
N	N.H.	352 (5)
O	Mass.	338 (545)
P	Mass.	339 (575)
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N.Y.	385
T	N.Y.	386
U		

5

10

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K



Underlined trees are clonal selections established in assigned location on 7-7-59



10/26/61

# Grafted Sugar Maples needed for ~~AC-3~~ AC-1

	<u>DAES no.</u>	<u>number of trees needed</u>	<u>4/23/61</u>
B	344	9	not vigorous enough to graft
D	347	7	Grafted 4 stocks as shown
G	354	3	no stocks in place
H	356	2 = 2	no stocks in place
J	<del>358</del>	1 = 1	Complete grafted 1 as shown
L	<del>273</del>	1	Complete
N	352	9	not big enough to graft
O	338	3	no rootstocks in place
P	<del>339</del>	8	complete
Q	341	6	5 needed - no stocks
S	385	9	grafted 2 stocks as shown
T	386	1	(see map - Take one out where indicated)
	273 =	7	
	272 =	6	
C	<del>340</del>	10	(576)



Check as of September 29, 1960

Sugar Maples Grafted in 1957

Lined Out in Nursery

cf.  
notebook  
p. 113

	<u>Tree No.</u>	<u>Number</u>	
M	351-8	9	OK
R	669	8	OK
G	354 2	10 6	
	361 9	4	destroy - these are lane trees
	20	3	not Ant. no 9 (272)
D	498	1	
J	358 6	10	OK
T	386	5 or 6	

		<u>Budded</u>
J	358 6	3
M	351 3	1

Seed Sources in Nursery

Ohio Han.	No. 20	1
Va.	33	2
Michigan Ant		5
Iowa - Clayton		1
Ill. - McL		8
Ill. - Union		4
Maine - Som		2
North Carolina		1

Grafted Sugar Maple of 1960 in Nursery

C	No. 340 - 576	6
	339 - 575	7



9/6/61

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column 5 10 15 20 25

Row

U A B F K L M N

T C E H U O R S

S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A

N L D A H L O A U G K M G Q K U C O F S J M B

M C B G Q P K T F A N H R A L D P G T K N C

U T R D J S E B O J S B M E Q H U A O D

S E H R L C P K T C N F R J L B P E

F G Q M D Q A U D O G S K M C Q F

P N U R B L E P H T A N D R G

O T S C M F Q J U B O E S H

E D N G R K L C P F T J

O H S A M D Q G U K

(Take out the "M") ← not yet done (11/16/61)

5

10

N

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

HBK 9-28-59



9/6/61

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column	5	10	15	20	25
Row					

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

<u>Index</u>		
A	Vermont	343 (390)
B	Vermont	344 (397)
C	Vermont	345 (463)
D	Vermont	347 (489)
E	Vermont	348 (491)
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O	Mass.	338 (545)
P	Mass.	339 (575)
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N.Y.	385
T	N.Y.	386
U		

Underlined trees are clonal selections established in assigned location on 7-7-59



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

9/6/61

6/61

Column

5

10

15

20

25

Row

U A B F K L M N

T C E H U O R S

S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A

5

N L D A H L O A U G K M G Q K U C O F S J M B

M C B G Q P K T F A N H R A L D P G T K N C

U T R D J S E B O J S B M E Q H U A O D

S E H R L C P K T C N F R J L B P E

F G Q M D Q A U D O G S K M C Q F

P N U R B L E P H T A N D R G

O T S C M F Q J U B O E S H

E D N G R K L C P F T J

O H S A M D Q G U K

Index

A Vermont 343 (390)  
 B Vermont 344 (397)  
 C Vermont 345 (463)  
 D Vermont 347 (489)  
 E Vermont 348 (491)  
 F Vermont 350 (500)  
 G Ohio 354 (2)  
 H Ohio 356 (4)  
 J Ohio 358 (6)  
 K Ohio 272  
 L Ohio 273  
 M N.H. 351 (3)  
 N N.H. 352 (5)  
 O Mass. 338 (545)  
 P Mass. 339 (575)  
 Q Mass. 341 (662)  
 R Mass. 342 (669)  
 S N.Y. 385  
 T N.Y. 386  
 U

10

no tree  
 4/24/62

Underlined trees are clonal selections established in assigned location on 7-7-59

Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

Underlined trees are clonal selections established in assigned location on 7-7-59

HBK 9-28-59



T (386)

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

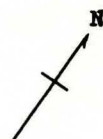
9/6/61

Column 5 10 15 20 25  
Row

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C S F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

Index

A Vermont 343 (390)  
B Vermont 344 (397)  
C Vermont 345 (463)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U



Underlined trees are clonal selections established in assigned location on 7-7-59

Take out this "T"



(354)

9/6/61

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Underlined trees are clonal selections established in assigned location on 7-7-59



S (385)

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

9/6/61

5

10

15

20

25

Row

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

5

10

N

Underlined trees are clonal selections established in assigned location on 7-7-59

HBK 9-28-59

No 4/23/62



(338)

9/6/61

Column	5	10	15	20	25
Row					

A	Vermont	343	(390)	
B	Vermont	344	(397)	
C	Vermont	345	(463)	
D	Vermont	347	(489)	
E	Vermont	348	(491)	
F	Vermont	350	(500)	
G	Ohio	354	(2)	
H	Ohio	356	(4)	10
J	Ohio	358	(6)	
K	Ohio	272		
L	Ohio	273		
M	N.H.	351	(3)	
N	N.H.	352	(5)	
O	Mass.	338	(545)	
P	Mass.	339	(575)	
Q	Mass.	341	(662)	
R	Mass.	342	(669)	
S	N.Y.	385		
T	N.Y.	386		
U				

HBK 9-28-59



J (358)

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

9/6/61

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column	5	10	15	20	25
Row					

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

## Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

Underlined trees are clonal selections established in assigned location on 7-7-59



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Column 5 10 15 20 25  
Row

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

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A Vermont 343 (390)  
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E Vermont 348 (491)  
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H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U

Underlined trees are clonal selections established in assigned location on 7-7-59



planted

L (273)

9/6/61

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

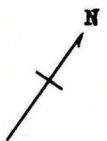
Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column 5 10 15 20 25  
Row

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

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A Vermont 343 (390)  
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C Vermont 345 (463)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U



Underlined trees are clonal selections established in assigned location on 7-7-59



OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

		Column	5	10	15	20	25																				
		Row																									
			U	A	B	F	K	<u>L</u>	M	<u>N</u>																	
			<u>T</u>	C	E	<u>H</u>	U	<u>O</u>	<u>R</u>	S																	
			S	<u>R</u>	<u>D</u>	<u>J</u>	G	<u>Q</u>	P	T																	
			<u>Q</u>	P	<u>O</u>	F	E	K	<u>J</u>	<u>M</u>	N	B	C	<u>H</u>	<u>J</u>	L	F	P	<u>J</u>	<u>T</u>	B	N	E	<u>R</u>	<u>H</u>	L	A
		5	N	<u>L</u>	<u>D</u>	A	<u>H</u>	L	<u>O</u>	A	U	<u>G</u>	K	<u>M</u>	<u>G</u>	<u>Q</u>	K	U	C	<u>O</u>	F	S	<u>J</u>	<u>M</u>	<u>B</u>		
			<u>M</u>	C	B	<u>G</u>	<u>Q</u>	P	K	<u>T</u>	F	A	N	<u>H</u>	<u>R</u>	A	L	<u>D</u>	P	<u>G</u>	<u>T</u>	K	N	C			
			U	<u>T</u>	<u>R</u>	<u>D</u>	<u>J</u>	S	E	B	O	J	S	B	<u>M</u>	E	<u>Q</u>	H	U	A	<u>O</u>	<u>D</u>					
			S	E	<u>H</u>	<u>R</u>	L	C	P	K	<u>T</u>	C	N	F	<u>R</u>	<u>J</u>	L	B	P	E							
			F	<u>G</u>	<u>Q</u>	<u>M</u>	<u>D</u>	<u>Q</u>	A	U	<u>D</u>	<u>O</u>	<u>G</u>	S	K	<u>M</u>	C	<u>Q</u>	F								
		10	P	N	U	<u>R</u>	B	L	E	P	<u>H</u>	<u>T</u>	A	N	<u>D</u>	<u>R</u>	<u>G</u>										
			<u>O</u>	<u>T</u>	S	C	<u>M</u>	F	<u>Q</u>	<u>J</u>	U	B	O	E	S	<u>H</u>											
			E	D	N	<u>G</u>	<u>R</u>	K	<u>L</u>	C	P	F	<u>T</u>	<u>J</u>													
			<u>O</u>	<u>H</u>	S	A	<u>M</u>	D	<u>Q</u>	<u>G</u>	U	K															
Index																											
A	Vermont	343	(390)																								
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C	Vermont	345	(463)																								
D	Vermont	347	(489)																								
E	Vermont	348	(491)																								
F	Vermont	350	(500)																								
G	Ohio	354	(2)																								
H	Ohio	356	(4)																								
J	Ohio	358	(6)																								
K	Ohio	272																									
L	Ohio	273																									
M	N.H.	351	(3)																								
N	N.H.	352	(5)																								
O	Mass.	338	(545)																								
P	Mass.	339	(575)																								
Q	Mass.	341	(662)																								
R	Mass.	342	(669)																								
S	N.Y.	385																									
T	N.Y.	386																									
U																											

N

Underlined trees are clonal selections established in assigned location on 7-7-59

Index

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F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
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N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

Underlined trees are clonal selections established in assigned location on 7-7-59



B (344)

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

9/6/61

Column 5 10 15 20 25  
Row

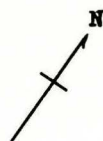
Index

A Vermont 343 (390)  
B Vermont 344 (397)  
C Vermont 345 (463)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U

5

10

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K



Underlined trees are clonal selections established in assigned location on 7-7-59



plant

C - (340)

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

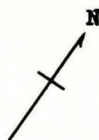
0 = root stock  
(already established)

Column 5 10 15 20 25  
Row

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

Index

A Vermont 343 (390)  
B Vermont 344 (397)  
C ~~Vermont 345 (463)~~ Mass. 340 (576)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U



Underlined trees are clonal selections established in assigned location on 7-7-59

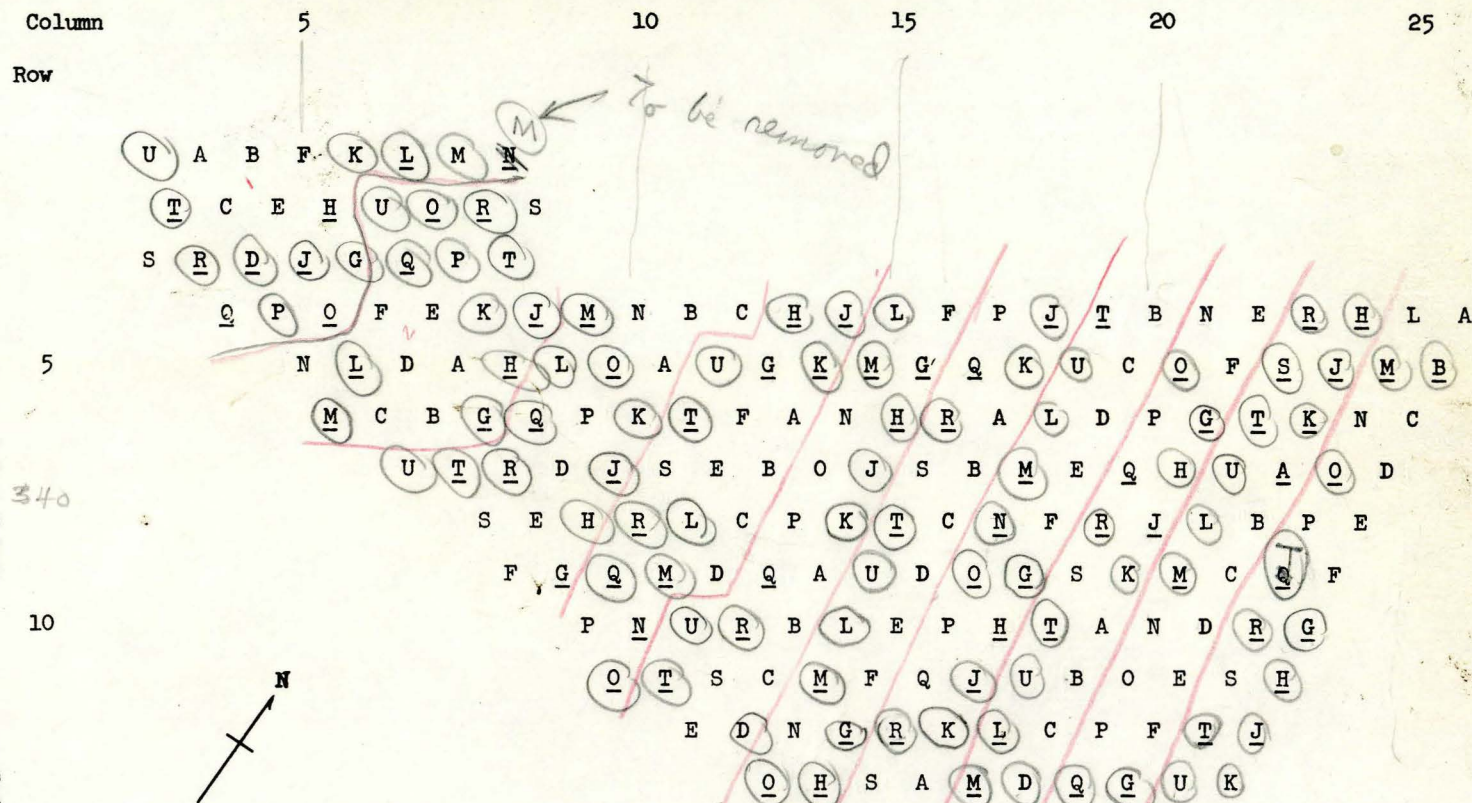


9/1/61  
Established selections

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)



alive

0  
1  
0  
0  
1  
0  
0

Index

A	Vermont	343 (390)	
B	Vermont	344 (397)	
C	Vermont	345 (463)	340
D	Vermont	347 (489)	
E	Vermont	348 (491)	
F	Vermont	350 (500)	
G	Ohio	354 (2)	
H	Ohio	356 (4)	10
J	Ohio	358 (6)	
K	Ohio	272	
L	Ohio	273	
M	N.H.	351 (3)	
N	N.H.	352 (5)	
O	Mass.	338 (545)	
P	Mass.	339 (575)	
Q	Mass.	341 (662)	
R	Mass.	342 (669)	
S	N.Y.	385	
T	N.Y.	386	
U			

Underlined trees are clonal selections established in assigned location on 7-7-59

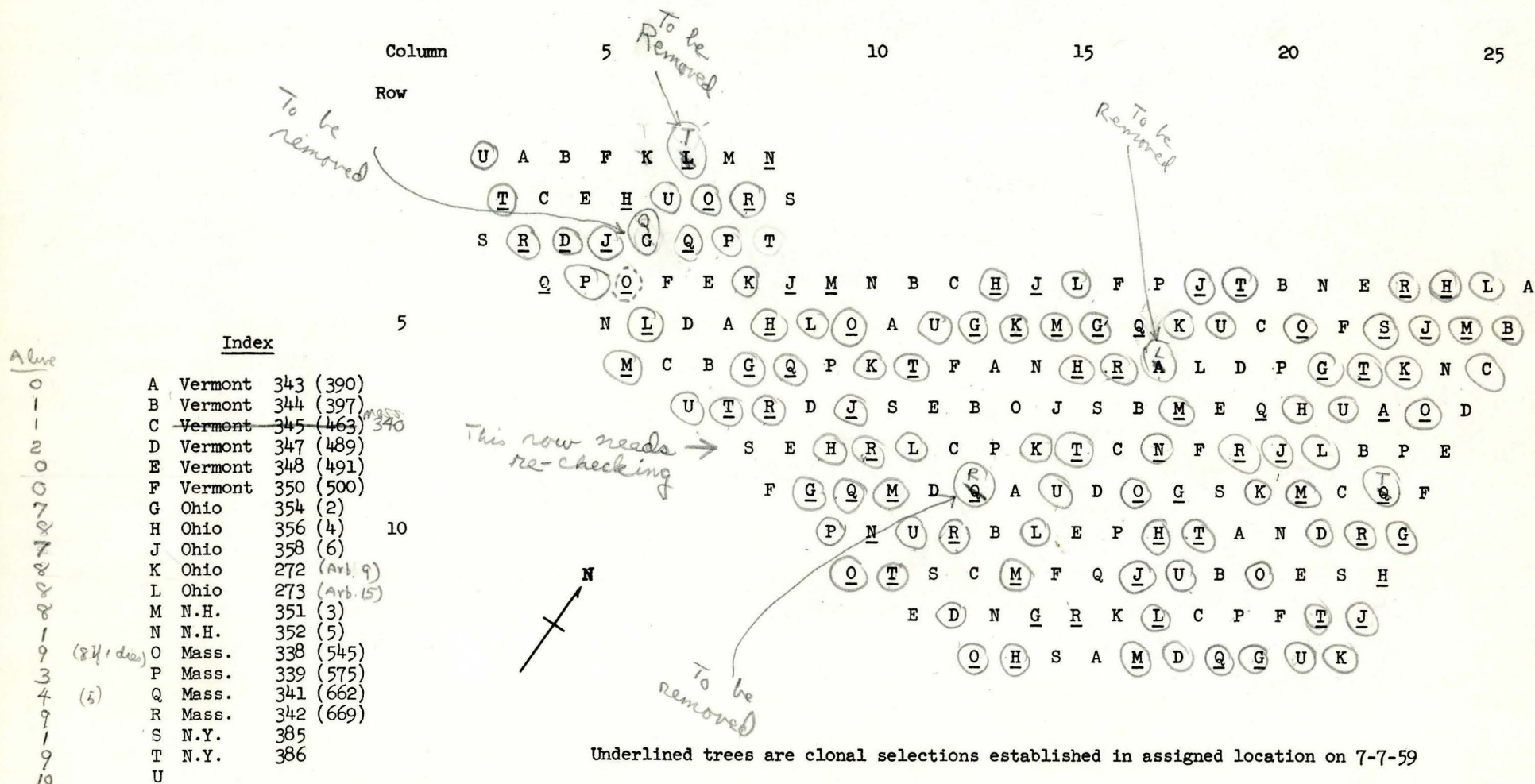


10/24/60  
Established trees

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)



Underlined trees are clonal selections established in assigned location on 7-7-59



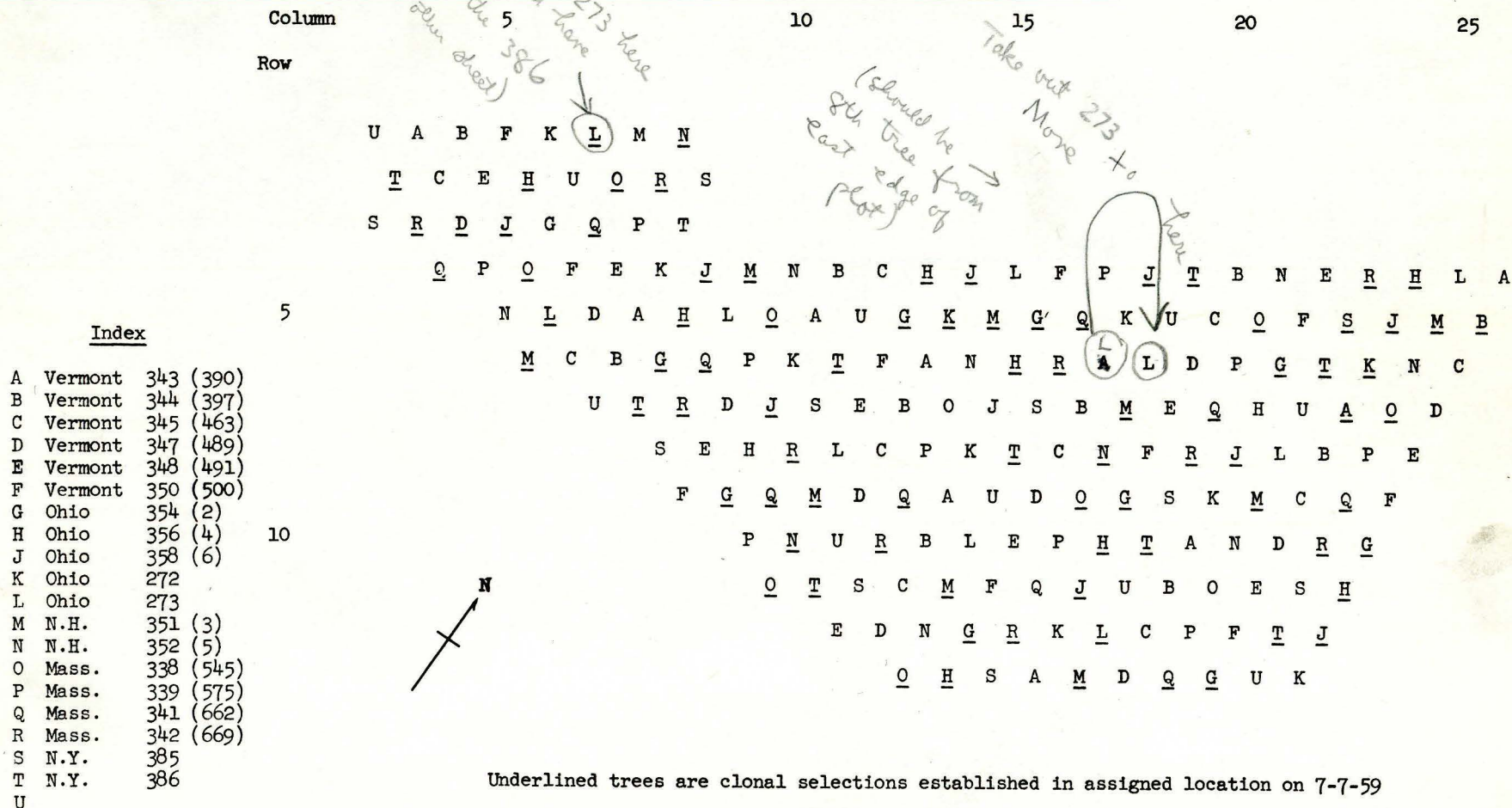
273 (L) Ohio 16

Replaced oct 27, 1960

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)





342 (669) "R" Mass.

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column	5	10	15	20	25
Row					

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

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F	Vermont	350	(500)
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H	Ohio	356	(4)
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K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

Underlined trees are clonal selections established in assigned location on 7-7-59

HBK 9-28-59

Take out this R, which  
shouldn't be here. Don't use as  
replacement unless absolutely  
certain it is.



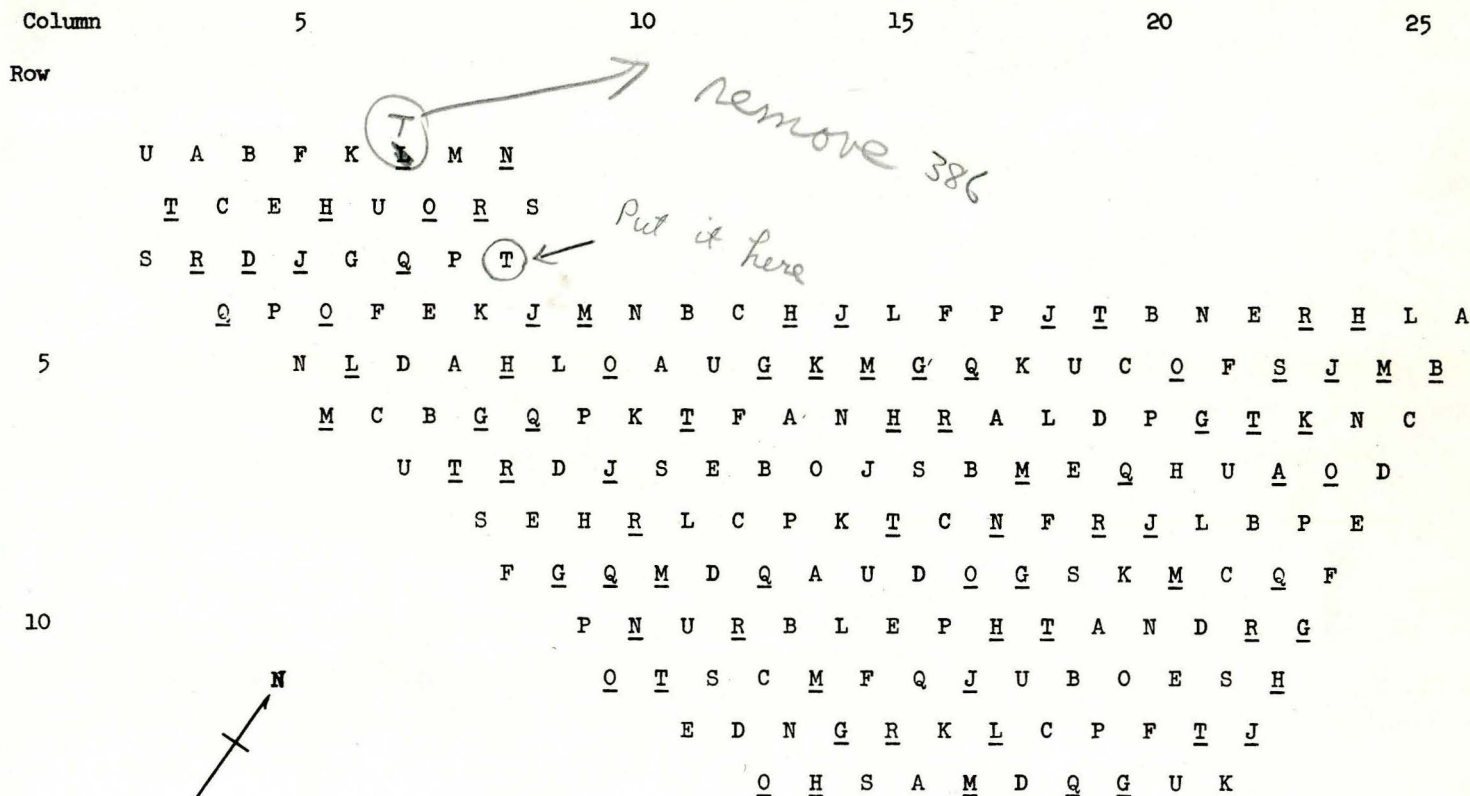
T (N.Y. 2)

Replaced octob 27. 1964

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)



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F	Vermont	350 (500)
G	Ohio	354 (2)
H	Ohio	356 (4)
J	Ohio	358 (6)
K	Ohio	272
L	Ohio	273
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N	N.H.	352 (5)
O	Mass.	338 (545)
P	Mass.	339 (575)
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N.Y.	385
T	N.Y.	386
U		

Underlined trees are clonal selections established in assigned location on 7-7-59



17/60

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Plant

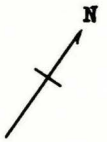
500

Column 5 10 15 20 25  
Row

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

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A Vermont 343 (390)  
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H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U



Underlined trees are clonal selections established in assigned location on 7-7-59



272 (9) K Ohio

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

To be planted in Oct. 27  
1960

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column 5 10 15 20 25  
Row

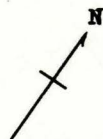
U A B F K L M N  
T C E H U O R S  
S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

Index

A Vermont 343 (390)  
B Vermont 344 (397)  
C Vermont 345 (463)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U

10



Underlined trees are clonal selections established in assigned location on 7-7-59

HBK 9-28-59

There are some of  
these in the  
lath house

not sure  
whether this  
one needs  
replacing or  
not.  
check tree  
& label







3506

Ohio 4

H

REPLACED OCTOBER 31, 1960

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column

5

10

15

20

25

Row

U A B ~~F~~ K L M NT C E ~~H~~ U O R S

S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A

N L D A H L O A U G K M G Q K U C O F S J M B

M C B G Q P K T F A N H R A L D P G T K N C

U T R D J S E B O J S B M E Q H U A O D

S E H R L C P K T C N F R J L B P E

F G Q M D Q A U D O G S K M C Q F

P N U R B L E P H T A N D R G

O T S C M F Q J U B O E S H

E D N G R K L C P F T J

O H S A M D Q G U K

## Index

A Vermont 343 (390)  
B Vermont 344 (397)  
C Vermont 345 (463)  
D Vermont 347 (489)  
E Vermont 348 (491)  
F Vermont 350 (500)  
G Ohio 354 (2)  
H Ohio 356 (4)  
J Ohio 358 (6)  
K Ohio 272  
L Ohio 273  
M N.H. 351 (3)  
N N.H. 352 (5)  
O Mass. 338 (545)  
P Mass. 339 (575)  
Q Mass. 341 (662)  
R Mass. 342 (669)  
S N.Y. 385  
T N.Y. 386  
U

5

10



Underlined trees are clonal selections established in assigned location on 7-7-59



REPLACED OCTOBER 31-1960

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column	5	10	15	20	25
--------	---	----	----	----	----

Row

U    A    B    F    K    L    M    N

T C E H U O R S

S R D J G Q P T

Q P O F E K J (M) N B C H J L F P J T B N E R H L A

N L D A H L O A U G K M G' Q K U C O F S J M B

M C B G Q P K T F A N H R A L D P G T K N C

U T R D J S E B O J S B M E Q H U A O D

S E H R L C P K T C N F R J L B P E

F G Q M D Q A U D O G S K M C Q F

P N U R B L E P H T A N D R G

O T S C M F Q J U B O E S H

E   D   N   G   R   K   L   C   P   F   T   J

O H S A M D Q G U K

## Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463)
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	
L	Ohio	273	
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

10

Underlined trees are clonal selections established in assigned location on 7-7-59



354 (2) G Ohio

To be planted Oct, 1960 <sup>27</sup>

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

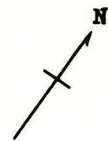
Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column 5 10 15 20 25  
Row

Take out 341 (662)  
that is here now,  
plant 354

Index		5	10	15	20	25
A Vermont 343 (390)		U	A	B	F	K L M N
B Vermont 344 (397)		T	C	E	H	U O R S
C Vermont 345 (463)		S	R	D	J	G Q P T
D Vermont 347 (489)		Q	P	O	F	E K J M N B C H J L F P J T B N E R H L A
E Vermont 348 (491)		N	L	D	A	H L O A U G K M G Q K U C O F S J M B
F Vermont 350 (500)		M	C	B	G	Q P K T F A N H R A L D P G T K N C
G Ohio 354 (2)		U	T	R	D	J S E B O J S B M E Q H U A O D
H Ohio 356 (4)	10	S	E	H	R	L C P K T C N F R J L B P E
J Ohio 358 (6)		F	G	Q	M	D Q A U D O G S K M C Q F
K Ohio 272		P	N	U	R	B L E P H T A N D R G
L Ohio 273		O	T	S	C	M F Q J U B O E S H
M N.H. 351 (3)		E	D	N	G	R K L C P F T J
N N.H. 352 (5)		O	H	S	A	M D Q G U K
O Mass. 338 (545)						
P Mass. 339 (575)						
Q Mass. 341 (662)						
R Mass. 342 (669)						
S N.Y. 385						
T N.Y. 386						
U						



Underlined trees are clonal selections established in assigned location on 7-7-59

There are 6 of these 354's  
in the nursery



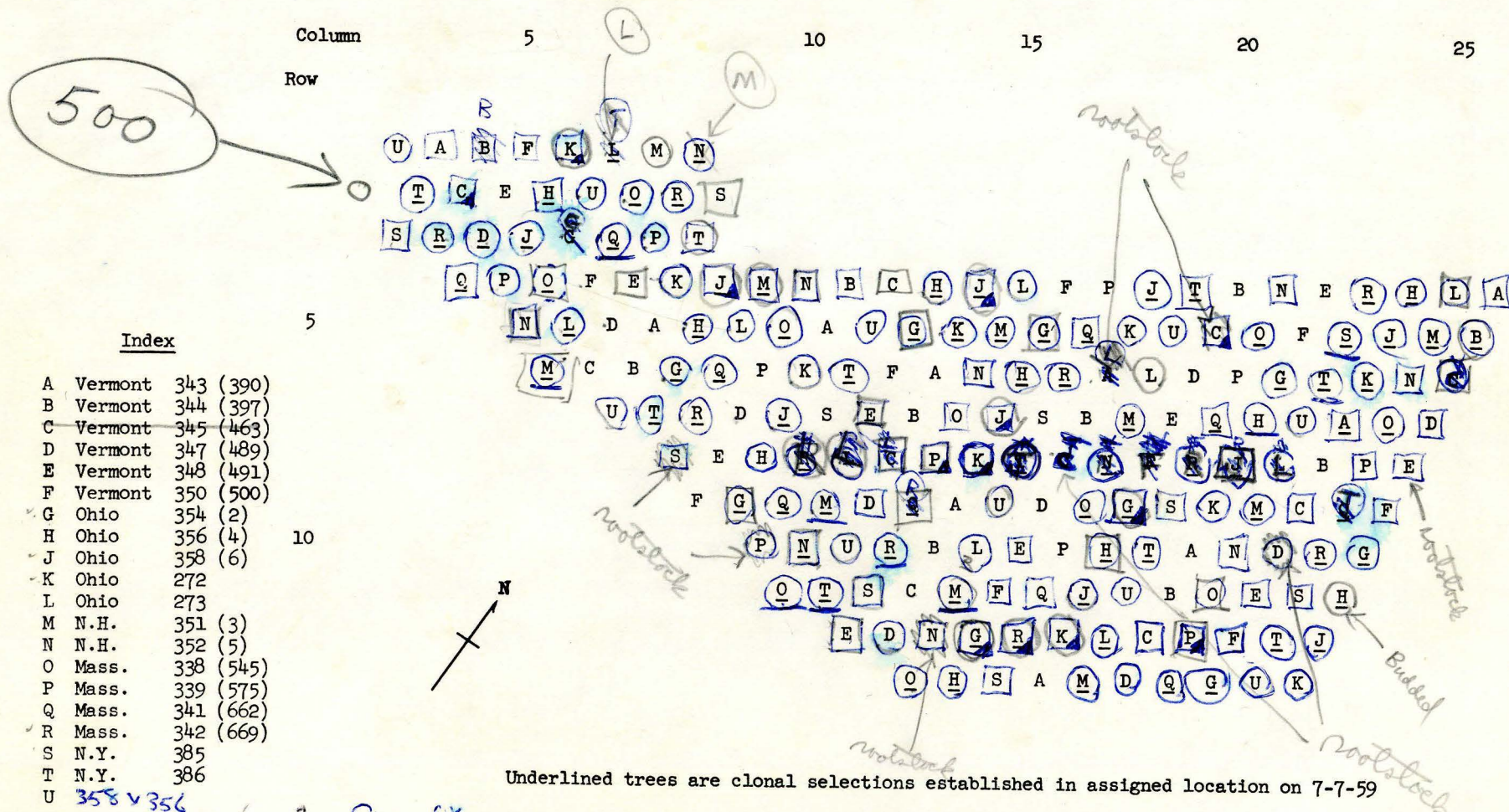
17/60  
10/4/60

# OHIO AGRICULTURAL EXPERIMENT STATION WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Plant



340

2 - O CK

may die  
O - □ No tree, no replacement in nursery  
O - ■ " " replacement in nursery  
1 - rootstock alive,

Scion material available

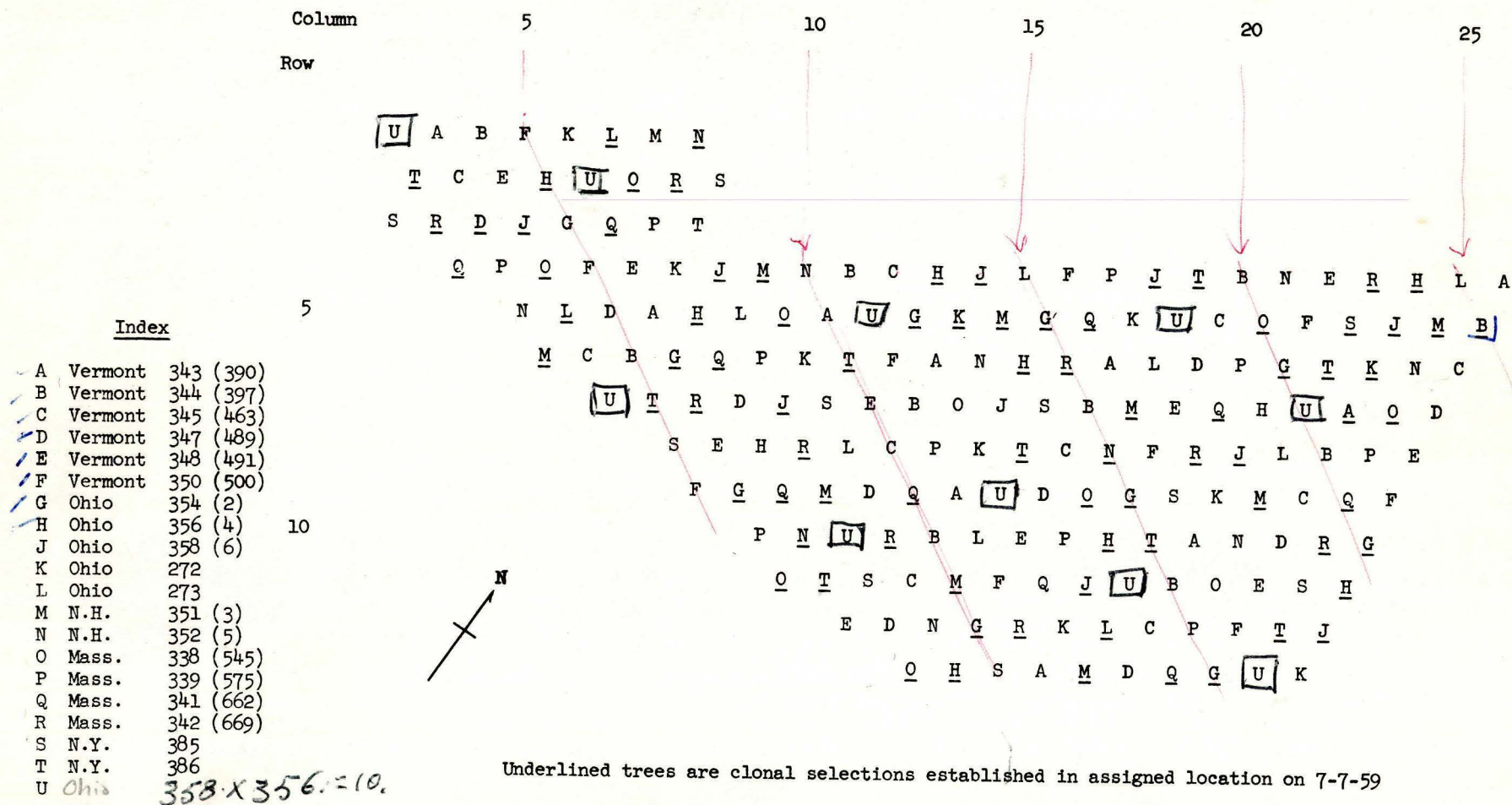


Planted Fall, 1959.

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)



Underlined trees are clonal selections established in assigned location on 7-7-59



340 (191) VA. E  
it was a mistake

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

		Column	5	10	15	20	25
		Row					
Index	A	Vermont	343	(390)			
	B	Vermont	344	(397)			
	C	Vermont	345	(463)			
	D	Vermont	347	(489)			
	E	Vermont	348	(491)			
	F	Vermont	350	(500)			
	G	Ohio	354	(2)			
	H	Ohio	356	(4)			
	J	Ohio	358	(6)			
	K	Ohio	272				
	L	Ohio	273				
	M	N.H.	351	(3)			
	N	N.H.	352	(5)			
	O	Mass.	338	(545)			
	P	Mass.	339	(575)			
	Q	Mass.	341	(662)			
	R	Mass.	342	(669)			
	S	N.Y.	385				
	T	N.Y.	386				
	U						

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

Underlined trees are clonal selections established in assigned location on 7-7-59

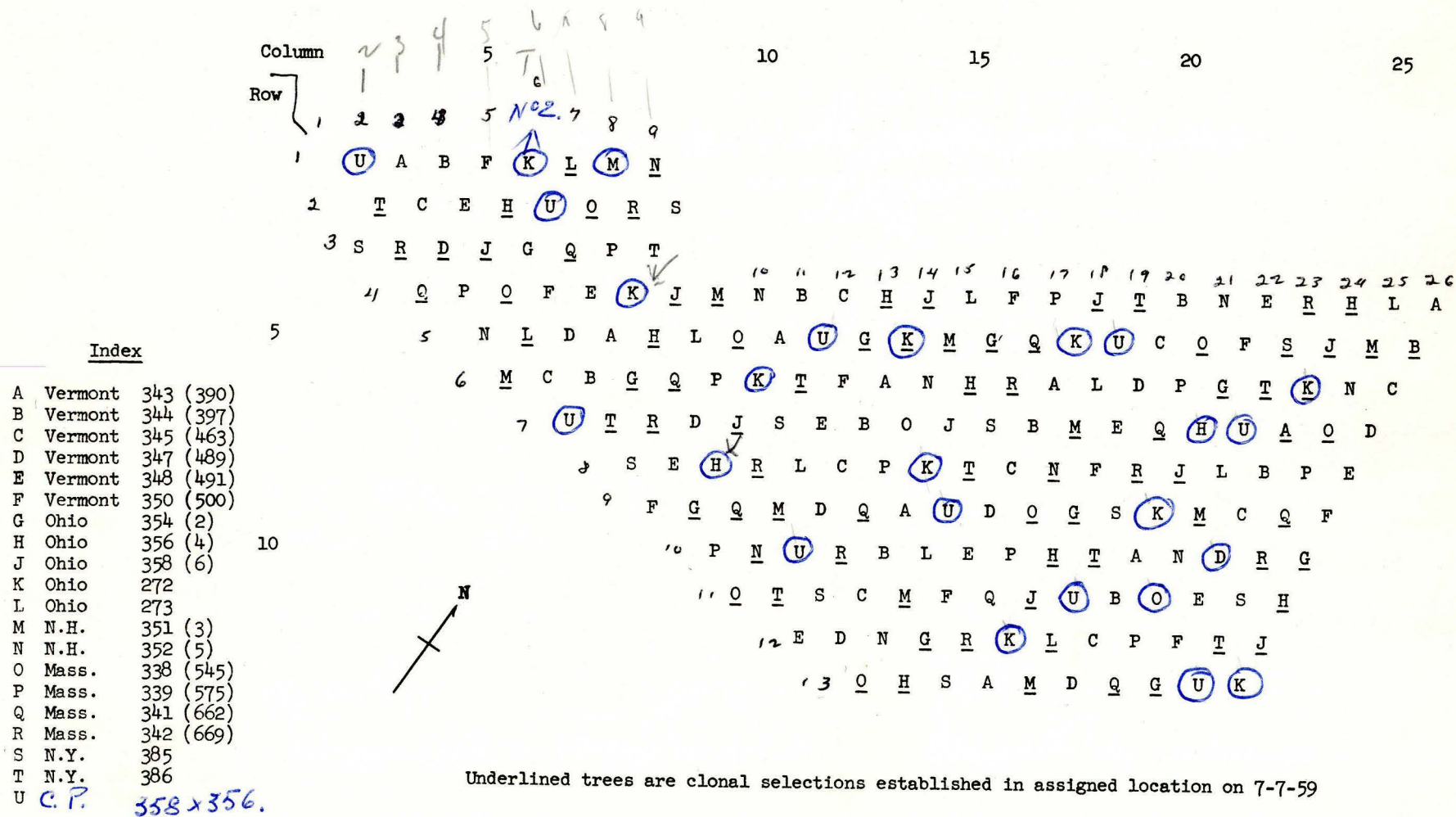


Replacement.  
Fall. 1959.  
O Replaced.

OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)





Survey 7/7/59

Map of Sugar Maple Seed Orchard  
Apple Creek State Hospital  
Wayne County, Ohio  
Established April, 1958

1 2 3 4 5 6 7 8 9  
1 U A B F K L M N  
2 T C E H U R O S  
3 S R D J G Q P T  
4 Q P O F E K J M N B C H J L F P J T B N E R H L A

Index

Dead

9	A	Vermont	343 (390)	1
9	B	Vermont	344 (397)	1
10	C	Vermont	345 (463)	0
9	D	Vermont	347 (489)	1
10	E	Vermont	348 (491)	0
10	F	Vermont	350 (500)	0
1	G	Ohio	354 (2)	9
2	H	Ohio	356 (4)	8
1	J	Ohio	358 (6)	9
8	K	Ohio	272	2
7	L	Ohio	273	3
1	M	N.H.	351 (3)	9
7	N	N.H.	352 (5)	3
2	O	Mass.	338 (545)	8
10	P	Mass.	339 (575)	0
1	Q	Mass.	341 (662)	9
0	R	Mass.	342 (669)	10
9	S	N.Y.	385	1
1	T	N.Y.	386	9
	U			

Alives

5 N L D A H L O A U G K M G Q K U C O F S J M B  
6 M C B G Q P K T F A N H R A L D P G T K N C  
7 U T R D J S E B O J S B M E Q H U A O D  
8 S E H R L C P K T C N F R J L B P E  
9 F G Q M D Q A U D O G S K M C Q F  
10 P N U R B L E P H T A N D R G  
11 O T S C M F Q J U B O E S H  
12 E D N G R K L C P F T J  
13 O H S A M D Q G U K

0 = absent; rootstock alive

2 = no stock

1 = scion alive but survival doubtful

3 = tree living, healthy



K Bud. 8 TREES. 1 failure.  
 L Bud 8 Trees. 1 good. 1 dead.  
 C Bud. 10 Trees. some failure Budded 100%.

July 1, 1958

Map of Sugar Maple Seed Orchard  
 Apple Creek State Hospital  
 Wayne County, Ohio  
 Established April, 1958

Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463) = 10.
D	Vermont	347	(489)
E	Vermont	348	(491)
F	Vermont	350	(500)
G	Ohio	354	(2)
H	Ohio	356	(4)
J	Ohio	358	(6)
K	Ohio	272	9 = 9
L	Ohio	273	15 = 8
M	N.H.	351	(3)
N	N.H.	352	(5)
O	Mass.	338	(545)
P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			

U A B F K L M N  
 T C E H U R O S  
 S R D J G Q P T  
 Q P O F E K J M N B C H J L F P J T B N E R H L A  
 N L D A H L O A U G K M G Q K U C O F S J M B  
 Good M C B G Q P K T F A N H R A L D P G T K N C  
 U T R D J S E B O J S B M E Q H U A O D  
 S E H R L C P K T C N F R J L B P E  
 F G Q M D Q A U D O G S K M C Q F  
 P N U R B L E P H T A N D R G  
 O T S C M F Q J U B O E S H  
 E D N G R K L C P F T J  
 O H S A M D Q G U K

means Good.  
 newly budded.  
 dead

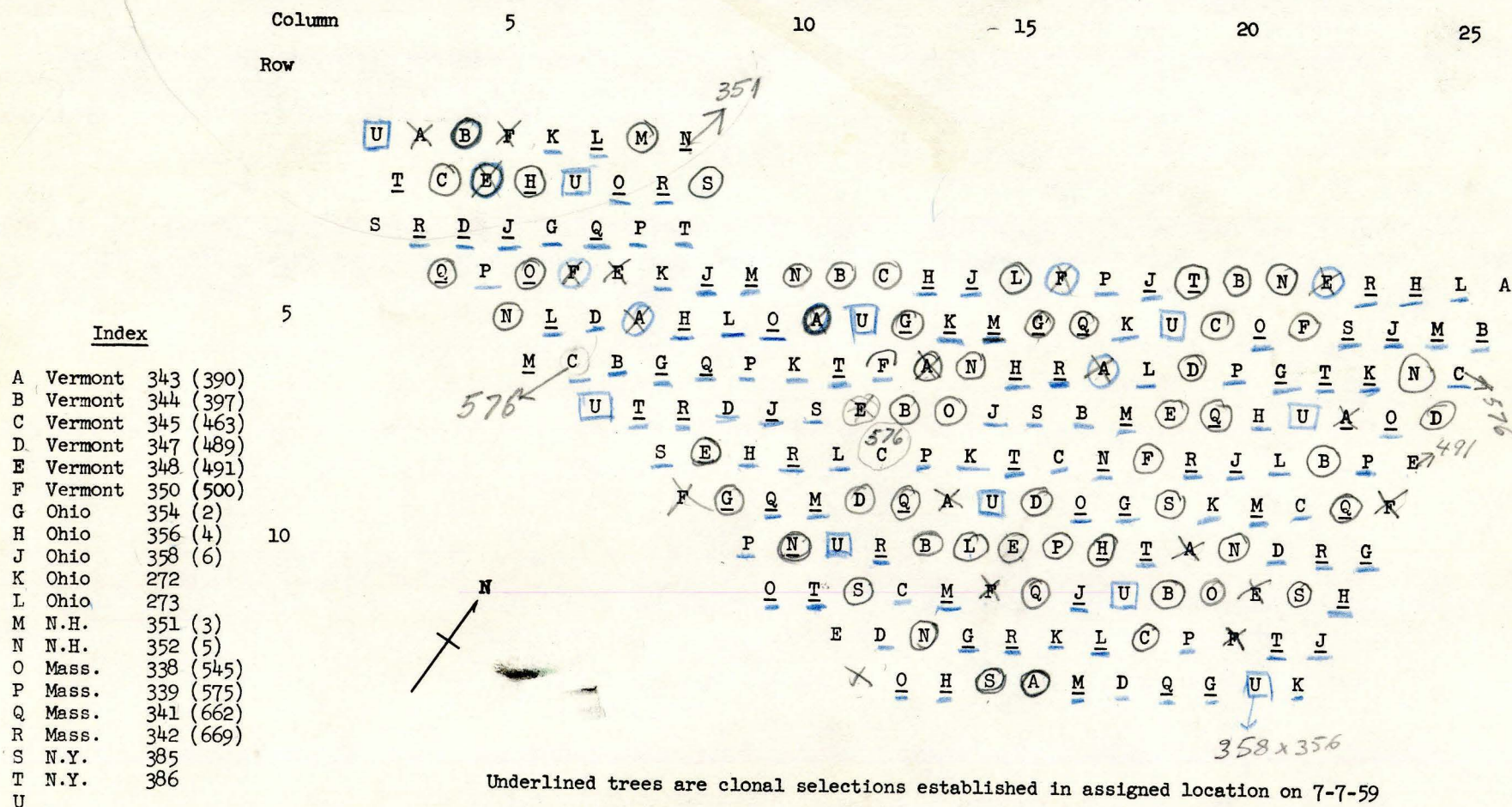


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

O = R. block  
X = no replacement scions  
U CROSS  
O not sure  
X Root sh. planted



Underlined trees are clonal selections established in assigned location on 7-7-59



Check up.  
as October. 29. 1958

Map of Sugar Maple Seed Orchard  
Apple Creek State Hospital  
Wayne County, Ohio  
Established April, 1958

U A B F K L M N

T C E H U R O S

S R D J G Q P T

# Index

Good.				no Good.
0 A	Vermont	343	(390)	10
2 B	Vermont	344	(397)	8
0 C	Vermont	345	(463)	10
2 D	Vermont	347	(489)	8
1 E	Vermont	348	(491)	9
0 F	Vermont	350	(500)	10
10 G	Ohio	354	(2)	0
10 H	Ohio	356	(4)	0
10 J	Ohio	358	(6)	0
1 K	Ohio	272	9D.29	
4 L	Ohio	273	15D.46	
10 M	N.H.	351	(3)	0
4 N	N.H.	352	(5)	6
10 O	Mass.	338	(545)	0
0 P	Mass.	339	(575)	10
10 Q	Mass.	341	(662)	0
0 R	Mass.	342	(669)	0
2 S	N.Y.	385		8
9 T	N.Y.	386		1
0 U				10

96

105

Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

O REPLACED on the 30th of October, 1958.

0 Dead but without replacement.

□ To be Grafted.

= Budded no Good. in 1958 and 1957.

L Budded in 1957. Good.



☐ REPLACED on the 30th of October.

☐ dead but no replacement.

☐ To be Grafted

105



O Dead.

= Root Elder Budded in 1958 (N's Good)  
 L IN 1957  
 □ To be Grafted.

Map of Sugar Maple Seed Orchard  
 Apple Creek State Hospital  
 Wayne County, Ohio  
 Established April, 1958

U A B F K L M N  
 T C E H U R O S  
 S R D J Q Q P T  
 Q P O F E K J M N B C H J L F P J T B N E R H L A

Index

A	Vermont	343	(390)	-
B	Vermont	344	(397)	-
C	Vermont	345	(463)	-
D	Vermont	347	(489)	= 1
E	Vermont	348	(491)	-
F	Vermont	350	(500)	-
G	Ohio	354	(2)	= 5
H	Ohio	356	(4)	= 5
J	Ohio	358	(6)	= 19
K	Ohio	272	9 D. 2	-
L	Ohio	273	15 D. 4	= 2
M	N.H.	351	(3)	= 12
N	N.H.	352	(5)	= 3
O	Mass.	338	(545)	= 9
P	Mass.	339	(575)	✓
Q	Mass.	341	(662)	= 9
R	Mass.	342	(669)	= 26
S	N.Y.	385		
T	N.Y.	386		= 8
U				

N L D A H L O A U G K M G Q K U C O F S J M B  
 M C B G Q P K T F A N H R A L D P G T K N C  
 U T R D J S E B O J S B M E H U A O D  
 S E H R L C P K T C N F R J L B P E  
 F G Q M D A U D O G S K M C Q F  
 P N U R B L E P H T A N D R G  
 O T S C M F Q J U B O E S H  
 E D N G R K L C P F T J  
 O H S A M D Q G U K

No Good Bud.



Map of Sugar Maple Seed Orchard  
 Apple Creek State Hospital  
 Wayne County, Ohio  
 Established April, 1958

U A B F K L M N  
T C E H U R S  
 S R D J G Q P T

Index

A	Vermont	343 (390)
B	Vermont	344 (397)
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P	Mass.	339 (575)
Q	Mass.	341 (662)
R	Mass.	342 (669)
S	N.Y.	385
T	N.Y.	386
U		

Q P O F E K J M N B C H J L F P J T B N E R H L A  
 N L D A H L O A U G K M G Q K U C O F S J M B  
 M C B G Q P K T F A N H R A L D P G T K N C  
 U T R D J S E B O J S B M E Q H U A O D  
 S E H R L C P K T C N F R J L B P E  
 F G Q M D Q A U D O G S K M C Q F  
 P N U R B L E P H T A N D R G  
 O T S C M F Q J U B O E S H  
 E D N G R K L C P F T J  
 O H S A M D Q G U K



Check up as on September 9-1958.

Map of Sugar Maple Seed Orchard  
Apple Creek State Hospital  
Wayne County, Ohio  
Established April, 1958

## Index

A	Vermont	343	(390)
B	Vermont	344	(397)
C	Vermont	345	(463)
D	Vermont	347	(489)
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N	N.H.	352	(5)
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P	Mass.	339	(575)
Q	Mass.	341	(662)
R	Mass.	342	(669)
S	N.Y.	385	
T	N.Y.	386	
U			



Row	Column	Replicate	Source	1	2	3	4
1	2	1	U				
	3		A				
	4		B				
	5		F				
	6		K				
	7		L				
	8		M				
	9		N				
2	9	2	S				
	8		R				
	7		O				
	6		U				
	5	1	H				
	4		E				
	3		C				
	2		T				
3	1		S				
	2		R				
	3		D				
	4		J				
	5		G				
	6	2	Q				
	7		P				
	8		T				
4	2	1	Q				
	3		P				
	4		O				
	5	2	F				
	6		E				
	7		K				
	8		J				
	9	3	M				
	10		N				
	11		B				
	12		C				
	13	4	H				
	14		J				
	15	5	L				
	16		F				



Row	Column	Replicate	Source	1	2	3	4
4	17	6	P	1			1
	18		J				
	19	7	T				
	20		B				
	21	8	N	1			
	22		E				1
	23	9	R				
	24		H	1		1	
	25	10	L		1		1
	26		A	1			
5	25	10	B	1			
	24		M	1		1	
	23	9	J				
	22		S				
	21	8	F				
	20		O				
	19	7	C		1		
	18		U	1			
	17	6	K		1		
	16		Q				
	15	5	G	1		1	
	14		M				
	13	4	K		1		
	12		G	1		1	
	11		U				
	10	3	A				
	9		O				
	8		L		1		
	7	2	H				
	6		A				
	5		D				
	4		L	1		1	
	3		N	1			
6	3	2	M	1		1	
	4	2	C		1		
	5		B				
	6		G	1		1	
	7	3	Q				
	8		P				
	9		K		1		



Row	Column	Replicate	Source	1	2	3
6	10	4	T			
	11		F			
	12		A			
	13	5	N	1		
	14		H			
	15	6	R			
	16		A			
	17	7	L		1	
	18		D			
	19	8	P			
	20		G	1		1
	21	9	T			
	22		K			
	23	10	N	1		
	24		C		1	
7	23	10	D	1		1
	22		O			
	21	9	A			
	20		U			
	19	8	H			
	18		Q	1		1
	17	7	E			
	16		M			
	15	6	B			
	14		S			
	13	5	J			
	12		O			
	11	4	B			
	10		E			
	9		S			
	8	3	J	1		1
	7		D			
	6		R	1		1
	5		T			
	4		U			
8	5	3	S			
	6		E			
	7		H			
	8	4	R	1		1



Row	Column	Replicate	Source
8	9	4	L
	10		C
	11	5	P
	12		K
	13	6	T
	14		C
	15	7	N
	16		F
	17	8	R
	18		J
	19	9	L
	20		B
	21	10	P
	22		E
9	21	10	F
	20		Q
	19	9	C
	18		M
	17	8	K
	16		S
	15	7	G
	14		O
	13	6	O
	12		U
	11	5	A
	10		Q
	9	4	D
	8		M
	7		Q
	6	3	G
	5		F
10	6	4	P
	7		N
	8	5	U
	9		R
	10		B
	11	6	L
	12		E
	13	7	P
	14		H

1 2 3

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Row	Column	Replicate	Source
10	15	8	T
	16		A
	17	9	N
	18		D
	19	10	R
	20		G
11	19	10	H
	18		S
	17	9	E
	16		O
	15	8	B
	14		U
	13	7	J
	12		Q
	11	6	F
	10		M
	9	5	C
	8		S
	7		T
	6	4	O
12	7	5	E
	8		D
	9	6	N
	10		G
	11	7	R
	12		K
	13	8	L
	14		C
	15	9	P
	16		F
	17	10	T
	18		J
13	17	10	K
	16		U
	15	9	G
	14		Q
	13	8	D
	12		M
	11	7	A
	10		S

1 2 3



AC-1

Sugar Maple Seed Orchard

6

Row  
Column  
Replicate  
Source

13

9

6

#

8

0

1

2

3

/

/



AC-1 Sugar Maple Seed Orchard

all trees planted April 1958

1. Mortality as of 10/29/58
2. Trees budded as of 10/29/58
3. Trees replaced 10/30/58
4. Root stocks alive but bud either dead or absent 7/7/59

Wm

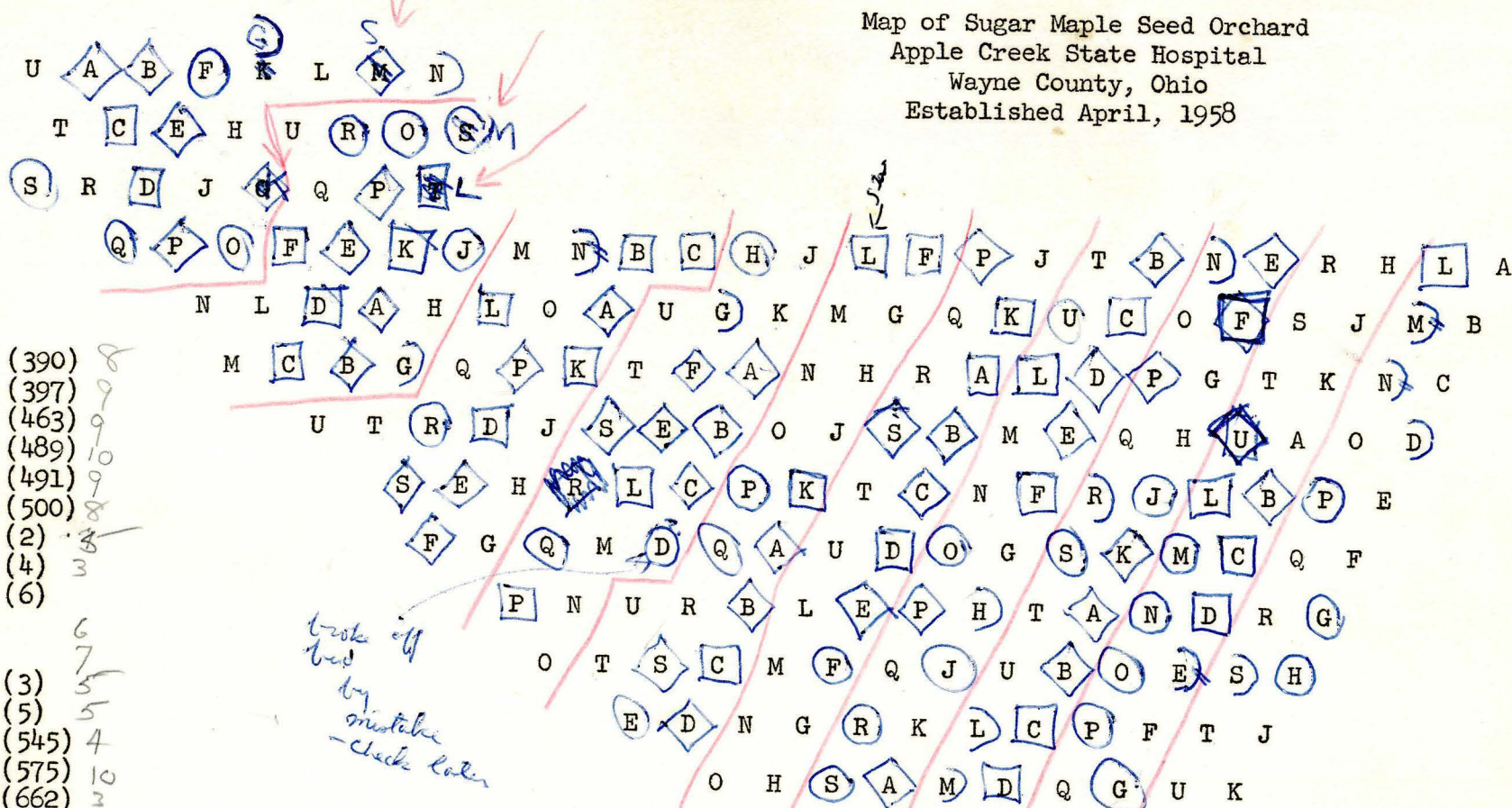


6/3/58

Map of Sugar Maple Seed Orchard  
Apple Creek State Hospital  
Wayne County, Ohio  
Established April, 1958

Index

A	Vermont	343	(390)	8
B	Vermont	344	(397)	9
C	Vermont	345	(463)	9
D	Vermont	347	(489)	10
E	Vermont	348	(491)	9
F	Vermont	350	(500)	8
G	Ohio	354	(2)	3
H	Ohio	356	(4)	3
J	Ohio	358	(6)	
K	Ohio	272		6
L	Ohio	273		7
M	N.H.	351	(3)	5
N	N.H.	352	(5)	5
O	Mass.	338	(545)	4
P	Mass.	339	(575)	10
Q	Mass.	341	(662)	3
R	Mass.	342	(669)	4
S	N.Y.	385		9
T	N.Y.	386		9
U				



- 1 -
- 0 - ○ = dead
- 2 - > = alive, questionable survival
- 3 - □ = bud dead, stock alive
- 4 - > = alive, ~~no~~ green tissue, no buds broken
- 5 - ◇ = not yet budded



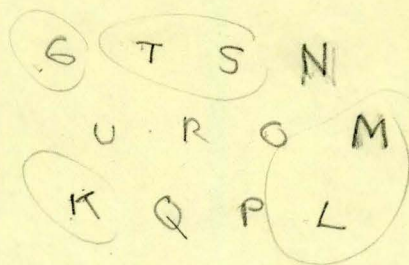
# Changes in Seed Orchard

Block 10

Switch L and M  
with T and S  
respectively

Switch G and K

field  
layout



Switch has been  
made on  
map but not  
in field  
4/29/58



Sugar Maple Seed Orchard  
Apple Creek State Hospital

Plot Layout

The plantation will include 20 clones, planted on a 30 x 30-foot spacing. This will mean approximately 49 trees per acre, 196 trees total for the four acres.

The trees will be planted in ten randomized blocks, with single-tree randomization within each block, with adjustments to prevent adjacent planting of two trees from the same clone on block boundaries, in order to minimize the possibility of selfing.

Since initially we do not have 20 ramets of each clone to be planted, shortages in blocks will be filled with selected root-stocks from our state nursery stock, to be budded this year or next, using buds taken from 1957 propagations.

Trees will be grouped in bundles according to block or replication, i.e., Bundle 1 will be Block 1, etc.

The bundles will be made up according to the chart on the following page.



Clones			Block (Bundle)									
			1	2	3	4	5	6	7	8	9	10
Vermont	A	390	(x)	x	(0)	(0)	(0)	0	0	0	0	0
	B	397	(x)	0	(0)	(0)	(0)	0	0	0	0	0
	C	463?	(x)	x	x	(x)	(x)	x	x	x	x	x
	D	489	(x)	x	x	(x)	(0)	0	0	0	0	0
	E	491	(x)	x	(0)	(0)	(0)	0	0	0	0	0
	F	500	(x)	x	x	(x)	x	x	0	0	0	0
Ohio	G	2	(x)	x	x	(x)	x	x	x	x	x	x
	H	4	(x)	x	x	(x)	x	x	x	x	x	x
	J	6	(x)	x	x	(x)	x	x	x	x	x	x
	K	9	(x)	x	x	(x)	x	x	x	x	x	x
	L	15	(x)	x	x	(x)	x	x	x	x	x	x
New Hampshire	M	3	(x)	x	x	(x)	x	x	x	x	x	x
	N	5	(x)	x	x	x	x	x	x	x	x	x
Massachusetts	O	545	(x)	x	x	(x)	x	x	x	x	x	x
	P	575	(x)	x	(x)	(0)	(0)	0	0	0	0	0
	Q	662	(x)	x	x	(x)	x	x	x	x	x	x
	R	669	(x)	x	x	(x)	x	x	x	x	x	x
New York	S	1	(x)	x	x	(x)	x	x	x	x	x	x
	T	2	(x)	x	x	(x)	x	x	x	x	x	x
Extra	V	0	0	0	0	0	0	0	0	0	0	0
Total		20	20	20	20	20	20	20	20	20	20	20

0 = nursery stock



Data of 7/23. 1959.

N<sup>o</sup> 20 = 5

N<sup>o</sup> 21 = 13

N<sup>o</sup> 4 = 5

N<sup>o</sup> 6 = 18

N<sup>o</sup> 3 = 10

Map of Sugar Maple Seed Orchard  
Apple Creek State Hospital  
Wayne County, Ohio  
Established April, 1958

U A B F K L M N

T C E H U R O S

S R D J G Q P T

Q P O F E K J M N B C H J L F P J T B N E R H L A

N L D A H L O A U G K M G Q K U C O F S J M B

M C B G Q P K T F A N H R A L D P G T K N C

U T R D J S E B O J S B M E Q H U A O D

S E H R L C P K T C N F R J L B P E

F G Q M D Q A U D O G S K M C Q F

P N U R B L E P H T A N D R G

O T S C M F Q J U B O E S H

E D N G R K L C P F T J

O H S A M D Q G U K

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A	Vermont	343 (390)
B	Vermont	344 (397)
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D	Vermont	347 (489) <sup>h</sup>
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G	Ohio	354 (2)
H	Ohio	356 (4)
J	Ohio	358 (6)
K	Ohio	272
L	Ohio	273
M	N.H.	351 (3)
N	N.H.	352 (5)
O	Mass.	338 (545) <sup>1</sup>
P	Mass.	339 (575)
Q	Mass.	341 (662) <sup>1</sup>
R	Mass.	342 (669) <sup>18</sup>
S	N.Y.	385 <sup>6</sup>
T	N.Y.	386
U		

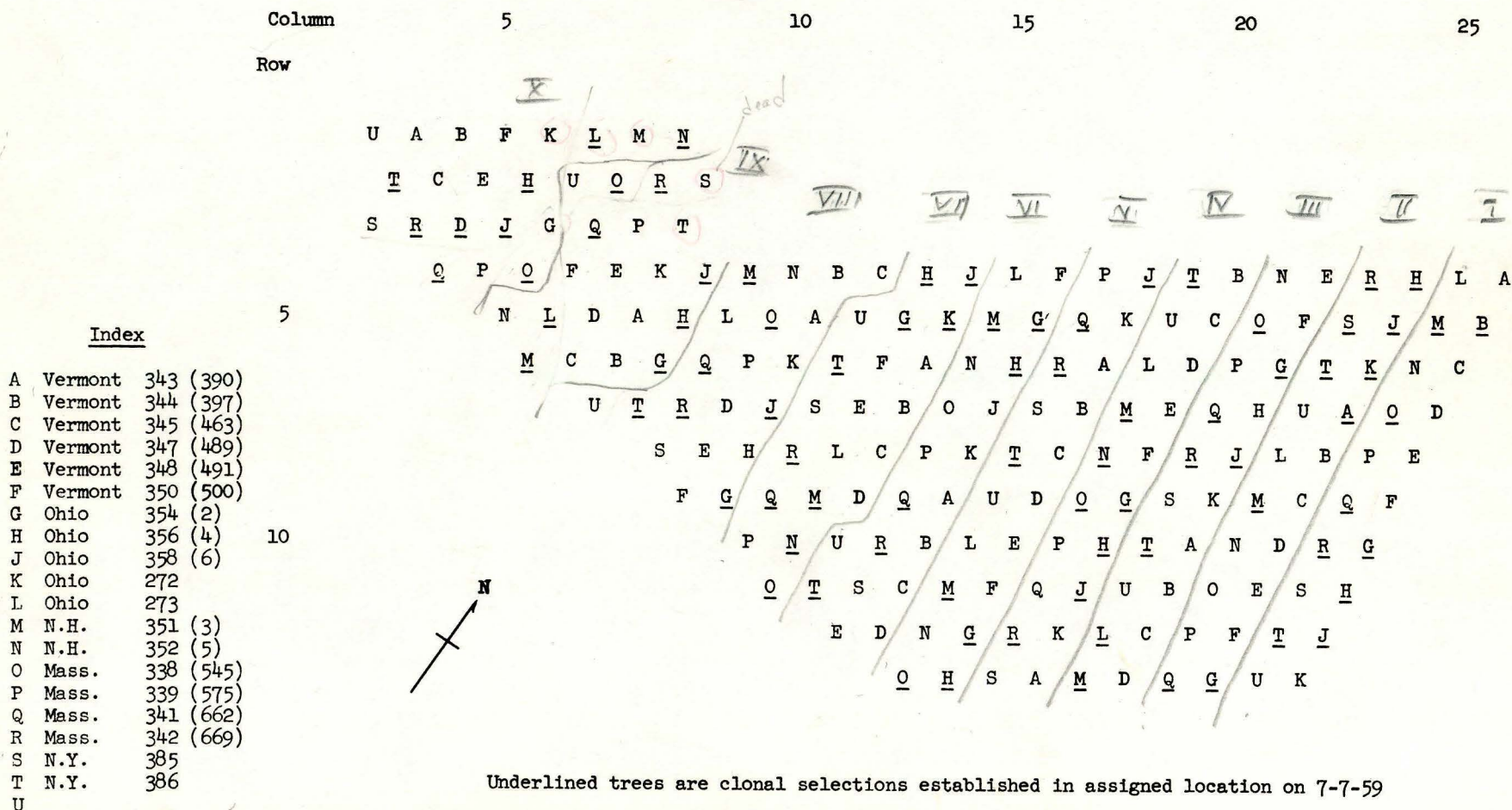


OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

BLOCKS





OHIO AGRICULTURAL EXPERIMENT STATION  
WOOSTER, OHIO

Initiated in April, 1958  
Spacing: 30 x 30' triangular

Sugar Maple Seed Orchard  
Plantation AC-1  
(Apple Creek State Hospital)

Column	5	10	15	20	25
Row					

U A B F K L M N  
T C E H U O R S  
S R D J G Q P T  
Q P O F E K J M N B C H J L F P J T B N E R H L A  
N L D A H L O A U G K M G Q K U C O F S J M B  
M C B G Q P K T F A N H R A L D P G T K N C  
U T R D J S E B O J S B M E Q H U A O D  
S E H R L C P K T C N F R J L B P E  
F G Q M D Q A U D O G S K M C Q F  
P N U R B L E P H T A N D R G  
O T S C M F Q J U B O E S H  
E D N G R K L C P F T J  
O H S A M D Q G U K

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T	N.Y.	386
U		

Underlined trees are clonal selections established in assigned location on 7-7-59



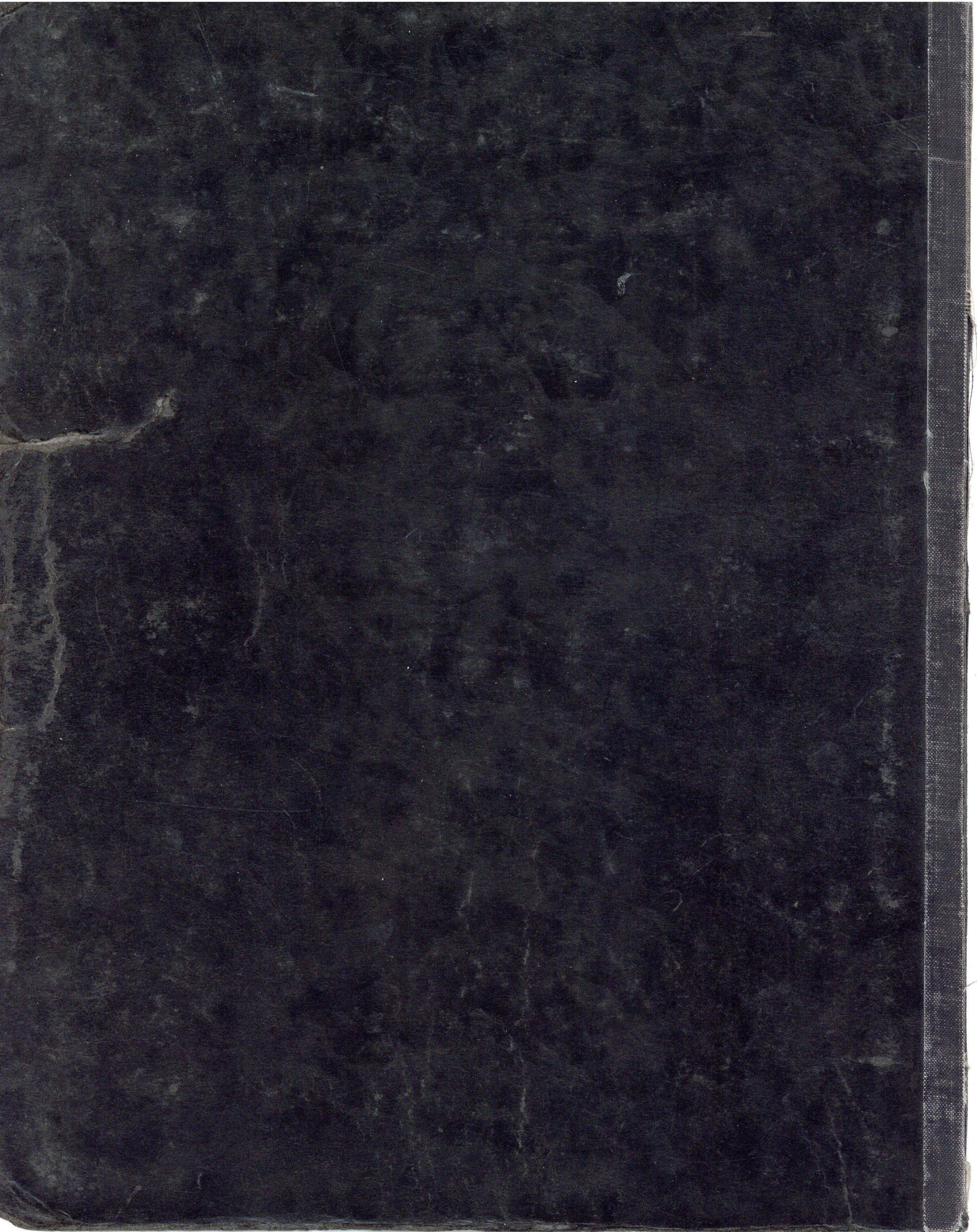
# ACCOPRESS®

## CLOTH BOUND BINDER

BF 2507 RED	BS 2507 TURQUOISE
BG 2507 BLACK	BQ 2507 PALM GREEN
BD 2507 GREY	BX 2507 EXECUTIVE NM
BP 2507 GREEN	BZ 2507 DARK GREEN
BU 2507 BLUE	BA 2507 TANGERINE
BY 2507 YELLOW	BB 2507 ROYAL BLUE
2507 CB-DEC	ASSORTED DISPLAY

647. PENDING







# ACCOPRESS®

## CLOTH BOUND BINDER

BF 2507 RED	BS 2507 TURQUOISE
BG 2507 BLACK	BQ 2507 PALM GREEN
BD 2507 GREY	BX 2507 EXECUTIVE BK
BF 2507 GREEN	BZ 2507 DARK GREEN
BU 2507 BLUE	BA 2507 TANGERINE
BY 2507 YELLOW	BB 2507 ROYAL BLUE
2507 CB-DBO	ASSORTED DISPLAY

947. PENDING



